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L17  ANSWER 1 OF 34  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2004:780526  HCAPLUS
DOCUMENT NUMBER:          141:289059
TITLE:                    Treatment of intestinal conditions
                          with N-2,3,3-tetramethylbicyclo[2.2.1]heptan-2-
                          amine
INVENTOR(S):              Devane, John
PATENT ASSIGNEE(S):       Athpharma Limited, Ire
SOURCE:                   PCT Int. Appl., 83 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
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     WO 2004080446         A1    20040923    WO 2004-IB1134
                                                                     200403
                                                                     12
     WO 2004080446         B1    20041209
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
             CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
             GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
             KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
             MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
             SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
             VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,
             DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
             ML, MR, NE, SN, TD, TG
     CA 2518385            AA    20040923    CA 2004-2518385
                                                                     200403
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     US 2004209961         A1    20041021    US 2004-798421
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200403
12

EP 1603544 A1 20051214 EP 2004-720110
200403
12

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK

PRIORITY APPLN. INFO.: US 2003-454527P P
200303
14

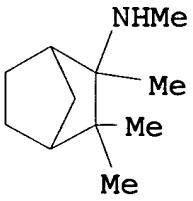
WO 2004-IB1134 W
200403
12

AB The invention discloses methods and formulations for reducing, preventing, and/or managing abnormal increases in **gastrointestinal** motility, and **intestinal** conditions that cause the same. Methods of using N-2,3,3-tetramethylbicyclo-[2.2.1]heptane-2-amine and formulations comprising N-2,3,3-tetramethylbicyclo-[2.2.1]heptan-2-amine are included.

IT **60-40-2**
(tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)

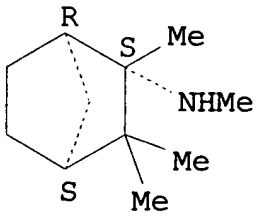


IT **107538-05-6 107538-06-7**
(tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

RN 107538-05-6 HCAPLUS

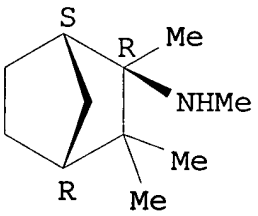
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl-, (1R,2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 107538-06-7 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl-, (1S,2R,4R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM A61K031-135
ICS A61P001-12
CC 1-9 (Pharmacology)
Section cross-reference(s): 63
ST tetramethylbicycloheptanamine **gastrointestinal** motility **intestinal** condition
IT Inflammation
(Crohn's disease, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT **Intestine**, disease
(Crohn's, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Antihistamines
(H2; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT **Gastrointestinal** motility
(agents altering; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT Drug delivery systems
(buccal; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT Inflammation
Intestine, disease
(**colitis, spastic, gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT **Intestine**, disease
(**colon**, neurogenic **colon**, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT Drug delivery systems
(delayed release; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT Biological transport
(digestive tract fluid transport, agents altering; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT **Gastrointestinal** motility
(disorder, dysmotility; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT Inflammation
Intestine, disease
(**diverticulitis, gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT Inflammation
Intestine, disease
(**enterocolitis**, acute, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT Drug delivery systems
(extended-release; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT Fats and Glyceridic oils, biological studies
(fish; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Digestive tract
(fluid transport, agents altering; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Bladder
(function; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT **Intestine**, disease
(functional **bowel** disorder, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Nervous system agents
(ganglionic blocking agents; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Drug delivery systems
(immediate-release; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT **Intestine**, disease
(inflammatory, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT **Intestine**, disease
(irritable **bowel** syndrome, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT **Intestine**
(large, infection, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT **Dysentery**
(mild, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal**

conditions, and combinations with other agents)
IT Drug delivery systems
(modified-release; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Drug delivery systems
(multiparticulate; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Drug delivery systems
(nasal; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT **Intestine**, disease
(neurogenic, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Drug delivery systems
(oral; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Transport proteins
(proton pump, inhibitors; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Stomach
(pylorus, **pyloric** spasm, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT **Intestine**, disease
(small, infection, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Muscle, disease
(spasm, **abdominal**, **gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Muscle relaxants
(spasmolytics; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
IT Digestive tract, **disease**

(**splenic flexure syndrome**,
gastrointestinal motility increase from;
tetramethylbicycloheptanamine for modulating
gastrointestinal motility and treating **intestinal**
conditions, and combinations with other agents)

IT Drug delivery systems
(sublingual; tetramethylbicycloheptanamine for modulating
gastrointestinal motility and treating **intestinal**
conditions, and combinations with other agents)

IT Drug delivery systems
(tablets, modified-release; tetramethylbicycloheptanamine for
modulating **gastrointestinal** motility and treating
intestinal conditions, and combinations with other
agents)

IT 5-HT agonists
5-HT antagonists
Antacids
Anti-infective agents
Anti-inflammatory agents
Antidiarrheals
Blood pressure
Calcium channel blockers
Combination chemotherapy
Diarrhea
Diuretics
Drug delivery systems
Drug toxicity
Gastrointestinal agents
Heart rate
Human
Immunomodulators
Muscarinic antagonists
Nicotinic antagonists
Vision
(tetramethylbicycloheptanamine for modulating
gastrointestinal motility and treating **intestinal**
conditions, and combinations with other agents)

IT Corticosteroids, biological studies
Estrogens
Mineralocorticoids
Opioids
Steroids, biological studies
(tetramethylbicycloheptanamine for modulating
gastrointestinal motility and treating **intestinal**
conditions, and combinations with other agents)

IT Drug delivery systems
(transdermal; tetramethylbicycloheptanamine for modulating
gastrointestinal motility and treating **intestinal**

conditions, and combinations with other agents)

IT Inflammation
Intestine, disease
(**ulcerative colitis, gastrointestinal** motility increase from; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT Adrenoceptor antagonists
(.beta.-; tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT **60-40-2**
(tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)

IT 50-02-2, Dexamethasone 50-23-7, Cortisol 50-24-8, Prednisolone 50-44-2, 6-Mercaptopurine 51-34-3, Scopolamine 51-55-8, Atropine, biological studies 52-53-9, Verapamil 53-03-2, Prednisone 53-06-5, Cortisone 54-11-5, Nicotine 54-31-9, Furosemide 57-27-2, Morphine, biological studies 57-94-3, Tubocurarine 59-05-2, Methotrexate 60-26-4, Hexamethonium 69-27-2 76-41-5, Oxymorphone 76-57-3, Codeine 89-57-6, 5-Aminosalicylic acid 101-31-5, Hyoscyamine 124-90-3, Oxycontin 125-28-0, Dihydrocodeine 156-74-1, Decamethonium 306-40-1, Succinylcholine 378-44-9, Betamethasone 437-38-7, Fentanyl 443-48-1, Metronidazole 446-86-6, Azathioprine 596-51-0, Glycopyrrolate 599-79-1, Sulfasalazine 768-94-5, Amantadine 2609-46-3, Amiloride 7187-66-8, Trimethaphan 7290-03-1, Erysodine 7440-69-9, Bismuth, biological studies 9005-49-6, Heparin, biological studies 15500-66-0, Pancuronium 23255-54-1 28782-42-5, Difenoxine 50700-72-6, Vecuronium 53179-11-6, Loperamide 55985-32-5, Perpidine 59865-13-3, Cyclosporine 64228-79-1, Atracurium 79517-01-4, Sandostatin 85721-33-1, Ciprofloxacin 90566-53-3, Fluticasone **107538-05-6** **107538-06-7** 122852-69-1, Alosetron hydrochloride 133814-18-3, Doxacurium 133814-19-4, Mivacurium 143558-00-3, Rocuronium 170277-31-3, Remicade 760175-93-7 760175-94-8 760175-95-9 760175-96-0 760175-97-1 760175-98-2 760175-99-3 760176-00-9 760176-01-0 760176-02-1 760176-03-2 760176-04-3 760176-05-4 760176-06-5 760176-07-6 760176-08-7 760176-09-8 760176-10-1 760176-11-2 760176-12-3 760176-13-4 760176-14-5 760176-15-6 760176-16-7 760176-17-8 760176-18-9 760176-19-0 760176-20-3 760176-21-4 760176-22-5 760176-23-6 760176-24-7 760176-25-8 760176-27-0 760176-28-1 760176-29-2 760176-30-5 760176-31-6 760176-32-7 760176-33-8 760176-34-9 760176-35-0 760176-36-1 760176-37-2 760176-38-3 760176-39-4 760176-40-7 760176-41-8 760176-42-9 760176-43-0 760176-44-1 760176-45-2

(tetramethylbicycloheptanamine for modulating **gastrointestinal** motility and treating **intestinal** conditions, and combinations with other agents)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

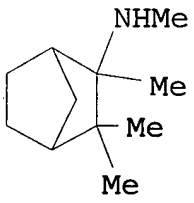
L17 ANSWER 2 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:499918 HCAPLUS
DOCUMENT NUMBER: 139:240692
TITLE: Blockade of neuronal facilitatory nicotinic receptors containing .alpha.3.beta.2 subunits contribute to tetanic fade in the rat isolated diaphragm
AUTHOR(S): Faria, Miguel; Oliveira, Laura; Timoteo, M. Alexandrina; Lobo, M. Graca; Correia-De-Sa, Paulo
CORPORATE SOURCE: Laboratorio de Farmacologia, Unidade Multidisciplinary de Investigacao Biomedica (UMIB), Instituto de Ciencias Biomedicas de Abel Salazar (ICBAS), Universidade do Porto, Oporto, 4099-003, Port.
SOURCE: Synapse (New York, NY, United States) (2003), 49(2), 77-88
CODEN: SYNAET; ISSN: 0887-4476
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Nicotinic receptor (nAChR) subtypes involved in pre- and postjunctional actions underlying tetanic fade were studied in rat phrenic-nerve hemidiaphragms. We investigated the ability of subtype-specific nAChR antagonists to depress nerve-evoked contractions and [3H]-acetylcholine ([3H]-ACh) release. Muscle tension was transiently increased during brief high frequency trains (50 Hz for 5 s). The rank potency order of nAChR antagonists to reduce tetanic peak tension was .alpha.-bungarotoxin > d-tubocurarine " mecamylamine " hexamethonium. Redn. of maximal tetanic tension produced by dihydro-.beta.-erythroidine (0.03-10 .mu.M), methyllycaconitine (0.003-3 .mu.M), and .alpha.-conotoxin MII (0.001-0.3 .mu.M) did not exceed 30%. Besides redn. of peak tension d-tubocurarine (0.1-0.7 .mu.M), mecamylamine (0.1-300 .mu.M), and hexamethonium (30-3,000 .mu.M) also caused tetanic fading. With .alpha.-conotoxin MII (0.001-0.3 .mu.M) and dihydro-.beta.-erythroidine (0.03-10 .mu.M), tetanic fade was evident only after decreasing the safety factor of neuromuscular transmission (with high magnesium ions, 6-7 mM). The antagonist rank potency order to reduce evoked (50 Hz for 5 s) [3H]-ACh release from motor nerve terminals was .alpha.-conotoxin MII (0.1 .mu.M) >

dihydro-.beta.-erythroidine (1 .mu.M) .apprx. d-tubocurarine (1 .mu.M) > mecamylamine (100 .mu.M) > hexamethonium (1,000 .mu.M). When applied in a concn. (0.3 .mu.M) above that producing tetanic paralysis, .alpha.-bungarotoxin failed to affect [3H]-ACh release. Data obtained suggest that postjunctional neuromuscular relaxants interact with .alpha.-bungarotoxin-sensitive nicotinic receptors contg. .alpha.1-subunits, whereas blockade of neuronal .alpha.3.beta.2-contg. receptors produce tetanic fade by breaking nicotinic auto facilitation of acetylcholine release.

IT **60-40-2**, Mecamylamine
(nAChR antagonist; blockade of nicotinic receptors contg. .alpha.3.beta.2 subunits reduces Ach release triggered by high-frequency trains and tetanic tension of rat isolated diaphragm)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 2-8 (Mammalian Hormones)

IT **Abdominal** diaphragm
Muscle contraction
Muscle relaxants
Neuromuscular junction
(blockade of nicotinic receptors contg. .alpha.3.beta.2 subunits reduces Ach release triggered by high-frequency trains and tetanic tension of rat isolated diaphragm)

IT 57-94-3 60-26-4, Hexamethonium **60-40-2**, Mecamylamine 11032-79-4, .alpha.-Bungarotoxin 21019-30-7, Methyllycaconitine 23255-54-1, Dihydro-.beta.-erythroidine 175735-93-0, .alpha.-Conotoxin MII
(nAChR antagonist; blockade of nicotinic receptors contg. .alpha.3.beta.2 subunits reduces Ach release triggered by high-frequency trains and tetanic tension of rat isolated diaphragm)

REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:107915 HCAPLUS
DOCUMENT NUMBER: 136:156476
TITLE: Exo-S-mecamylamine formulation for therapeutic uses
INVENTOR(S): Shytle, Douglas; Sanberg, Paul; Newman, Mary; Silver, Archie A.
PATENT ASSIGNEE(S): University of South Florida, USA
SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of Appl. No. PCT/US99/30153.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002016371	A1	20020207	US 2001-882935	20010615
US 6734215	B2	20040511		
WO 2000035279	A1	20000622	WO 1999-US30153	19991216
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1634498	A2	20060315	EP 2005-24899	19991216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
US 2004044083	A1	20040304	US 2003-441947	20030923

PRIORITY APPLN. INFO.:		
US 1998-112534P	P	19981216
WO 1999-US30153	A2	19991216

EP 1999-967401 A3 199912 16

US 2001-882935 A1 200106 15

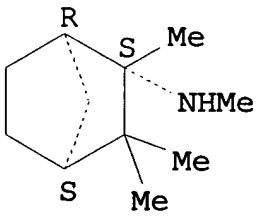
AB A pharmaceutical compn., suitable for administration by i.v., transdermal, intrathecal, oral, i.m., and bolus injection route, comprises substantially pure exo-S-mecamylamine or its salt, with <5% of exo-R-mecamylamine. The amt. of exo-S-mecamylamine in the compn. is about 0.5-1000 mg. The compn. is useful for the treatment of medical conditions that include but are not limited to substance addiction (involving nicotine, cocaine, alc., amphetamine, opiate, or other psychostimulants), aiding smoking cessation, treating wt. gain assocd. with smoking cessation, hypertension, tremors, cancer, atherogenic profile, neuropsychiatric disorders, chronic fatigue syndrome, Crohn's disease, autonomic dysreflexia, and spasmogenic **intestinal** disorders. For example, mecamylamine and its stereoisomers potently block nicotine-induced seizures in rats, with exo-S-mecamylamine displaying an overall higher therapeutic index over exo-R-mecamylamine.

IT **107538-05-6**
(compns. contg. exo-S-mecamylamine for treatment of drug dependence and other disorders)

RN 107538-05-6 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl-, (1R,2S,4S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

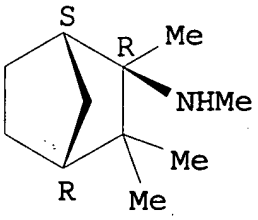


IT **107538-06-7P**
(compns. contg. exo-S-mecamylamine free of exo-R-mecamylamine)

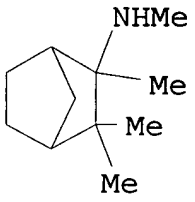
RN 107538-06-7 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl-, (1S,2R,4R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **60-40-2**, Mecamylamine
(pharmacol. activity of mecamylamine and its isomers)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM A61K031-13
ICS C07C211-34
INCL 514661000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
IT **Intestine**, disease
(Crohn's; compns. contg. exo-S-mecamylamine for treatment of drug dependence and other disorders)
IT **Intestine**, disease
(spasmogenic disorder; compns. contg. exo-S-mecamylamine for treatment of drug dependence and other disorders)
IT **107538-05-6** 107596-30-5
(compns. contg. exo-S-mecamylamine for treatment of drug dependence and other disorders)
IT **107538-06-7P** 107596-31-6P
(compns. contg. exo-S-mecamylamine free of exo-R-mecamylamine)
IT **60-40-2**, Mecamylamine 826-39-1, Mecamylamine hydrochloride
(pharmacol. activity of mecamylamine and its isomers)
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 4 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:107914 HCAPLUS

DOCUMENT NUMBER: 136:156475
TITLE: Exo-R-mecamylamine formulations for therapeutic uses
INVENTOR(S): Shytle, Douglas; Sanberg, Paul; Newman, Mary; Silver, Archie A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of Appl. No. PCT/US99/30137.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002016370	A1	20020207	US 2001-882934	200106 15
WO 2000035280	A1	20000622	WO 1999-US30137	199912 16
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1634498	A2	20060315	EP 2005-24899	199912 16
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				

PRIORITY APPLN. INFO.:		
US 1998-112534P	P	199812 16
WO 1999-US30137	A2	199912 16
EP 1999-967401	A3	199912 16

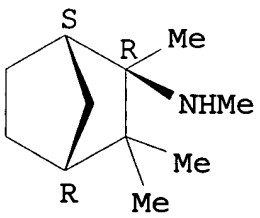
AB A pharmaceutical compn., suitable for administration by i.v., transdermal, intrathecal, oral, i.m., and bolus injection route, comprises substantially pure exo-R-mecamylamine or its salt, with <5% of exo-S-mecamylamine. The amt. of exo-R-mecamylamine in the compn. is about 0.5-1000 mg. The compn. is useful for the treatment of medical conditions that include but are not limited to substance addiction (involving nicotine, cocaine, alc., amphetamine, opiate, or other psychostimulants), aiding smoking cessation, treating wt. gain assocd. with smoking cessation, hypertension, tremors, cancer, atherogenic profile, neuropsychiatric disorders, chronic fatigue syndrome, Crohn's disease, autonomic dysreflexia, and spasmogenic **intestinal** disorders. For example, pretreatment with mecamylamine and its stereoisomers of rats exposed to nicotine dose-dependently prevented the development of the sensitized locomotor responses to nicotine. Chronic exposure to mecamylamine actually reduced the locomotor response to nicotine to levels below that seen in the saline (control) group. Although both isomers of mecamylamine followed the same general pattern, exo-R-mecamylamine was generally more effective at lower doses, for center distance and vertical activity.

IT **107538-06-7**
(compns. contg. exo-R-mecamylamine for treatment of drug dependence and other disorders)

RN 107538-06-7 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl-, (1S,2R,4R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

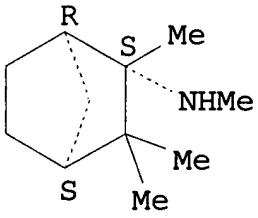


IT **107538-05-6P**
(compns. contg. exo-R-mecamylamine free of exo-S-mecamylamine)

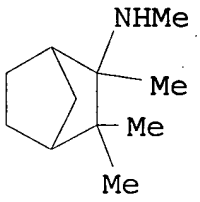
RN 107538-05-6 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl-, (1R,2S,4S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



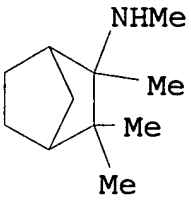
IT **60-40-2**, Mecamylamine
(pharmacol. activity of mecamylamine and its isomers)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM A61K031-13
ICS C07C211-34
INCL 514661000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
IT **Intestine**, disease
(Crohn's; compns. contg. exo-R-mecamylamine for treatment of drug dependence and other disorders)
IT **Intestine**, disease
(spasmogenic disorder; compns. contg. exo-R-mecamylamine for treatment of drug dependence and other disorders)
IT **107538-06-7** 107596-31-6
(compns. contg. exo-R-mecamylamine for treatment of drug dependence and other disorders)
IT **107538-05-6P** 107596-30-5P
(compns. contg. exo-R-mecamylamine free of exo-S-mecamylamine)
IT **60-40-2**, Mecamylamine 826-39-1, Mecamylamine hydrochloride
(pharmacol. activity of mecamylamine and its isomers)

L17 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:829443 HCAPLUS
DOCUMENT NUMBER: 136:130094
TITLE: Analgesic and Toxic Effects of Neonicotinoid Insecticides in Mice

AUTHOR(S): Tomizawa, Motohiro; Cowan, Alan; Casida, John E.
CORPORATE SOURCE: Environmental Chemistry and Toxicology Laboratory, Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA, 94720-3112, USA
SOURCE: Toxicology and Applied Pharmacology (2001), 177(1), 77-83
CODEN: TXAPA9; ISSN: 0041-008X
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Several nicotinic agonists with the 6-chloro-3-pyridinyl moiety are potent insecticides (e.g., the neonicotinoids imidacloprid and thiacloprid) while others are candidate nonopioid and nonantiinflammatory analgesics (i.e., epibatidine and several heterocyclic analogs). This study examines the hypothesis for the first time that the neonicotinoid insecticides and their imine metabolites and analogs display analgesic (antinociceptive) activity or adverse toxic effects assocd. with their action on binding to the .alpha.4.beta.2 nicotinic acetylcholine receptor (AChR) subtype. Seven 6-chloro-3-pyridinyl compds. were studied, i.e., imidacloprid and thiacloprid, the corresponding imines and an olefin deriv., a nitromethylene analog, and (.+-.)-epibatidine. Like (-)-nicotine and carbachol, they all act as full agonists in the 86rubidium ion efflux expt. with intact mouse fibroblast M10 cells stably expressing the .alpha.4.beta.2 nicotinic AChR. Their agonist action is correlated with binding affinity to the .alpha.4.beta.2 receptor from M10 cells. Imidacloprid, thiacloprid, and their imine analogs are not antinociceptive agents in mice by **abdominal** constriction and hot plate analgesic tests. Their agonist actions at the .alpha.4.beta.2 receptor correlate instead with their toxicity. Surprisingly, the nitromethylene analog, a weak agonist, is as potent as (-)-nicotine in inducing antinociception, and the effect persists longer than that caused by (-)-nicotine. However, mecamylamine (1 mg/kg) prevents antinociception induced by (-)-nicotine but not by the nitromethylene analog. Interestingly, this nitromethylene neonicotinoid insecticide gives 80-100% mortality within 15 min at 3 mg/kg with mecamylamine pretreatment at 2 mg/kg, doses at which each agent alone gives no lethality. Therefore, analgesic and toxic effects of the nitromethylene analog differ in their mechanism of action from (-)-nicotine and (.+-.)-epibatidine. (c) 2001 Academic Press.
IT **60-40-2**, Mecamylamine
(analgesic and toxic effects of neonicotinoid insecticides in mice)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 4-4 (Toxicology)
IT Muscle
(**abdominal**; analgesic and toxic effects of neonicotinoid insecticides in mice)
IT **60-40-2**, Mecamylamine
(analgesic and toxic effects of neonicotinoid insecticides in mice)
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 6 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:338762 HCAPLUS
DOCUMENT NUMBER: 134:362292
TITLE: Methods of determining individual hypersensitivity to a pharmaceutical agent from gene expression profile
INVENTOR(S): Farr, Spencer
PATENT ASSIGNEE(S): Phase-1 Molecular Toxicology, USA
SOURCE: PCT Int. Appl., 222 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032928	A2	20010510	WO 2000-US30474	20001103
WO 2001032928	A3	20020725		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ,

UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

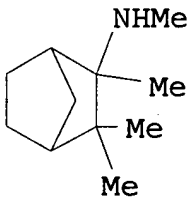
PRIORITY APPLN. INFO.: US 1999-165398P P 19991105
US 2000-196571P P 20000411

AB The invention discloses methods, gene databases, gene arrays, protein arrays, and devices that may be used to det. the hypersensitivity of individuals to a given agent, such as drug or other chem., in order to prevent toxic side effects. In one embodiment, methods of identifying hypersensitivity in a subject by obtaining a gene expression profile of multiple genes assocd. with hypersensitivity of the subject suspected to be hypersensitive, and identifying in the gene expression profile of the subject a pattern of gene expression of the genes assocd. with hypersensitivity are disclosed. The gene expression profile of the subject may be compared with the gene expression profile of a normal individual and a hypersensitive individual. The gene expression profile of the subject that is obtained may comprise a profile of levels of mRNA or cDNA. The gene expression profile may be obtained by using an array of nucleic acid probes for the plurality of genes assocd. with hypersensitivity. The expression of the genes predetd. to be assocd. with hypersensitivity is directly related to prevention or repair of toxic damage at the tissue, organ or system level. Gene databases arrays and app. useful for identifying hypersensitivity in a subject are also disclosed.

IT **60-40-2**, Mecamylamine
(methods of detg. individual hypersensitivity to a pharmaceutical agent from gene expression profile)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM C12Q001-68
ICS G01N033-50
CC 3-4 (Biochemical Genetics)
Section cross-reference(s): 1, 6, 7, 13, 15
IT **Intestine**
(**colon**; methods of detg. individual hypersensitivity to a pharmaceutical agent from gene expression profile)
IT Gene, animal
(**colony** stimulating factor 1; methods of detg. individual hypersensitivity to a pharmaceutical agent from gene expression profile)
IT **Intestine**
(goblet cell; methods of detg. individual hypersensitivity to a pharmaceutical agent from gene expression profile)
IT Aging, animal
Allergy
Apparatus
Astrocyte
Bone
Brain
Bronchodilators
Computer program
DNA microarray technology
Digestive tract
Dione
Drugs
Eye
Fibroblast
Gallbladder
Hepatitis
Hyperplasia
Hypertension
Hypotension
Immunosuppression
Inflammation
Intestine
Jaundice
Kidney
Leukemia

Leukocyte
Liver
Macrophage
Mast cell
Muscle
Mutagenesis
Necrosis
Nucleic acid hybridization
Oligodendrocyte
Ovary
Pancreas
Plantago psyllium
Podophyllum (plant)
Sex
Skin
Spleen
Statistical analysis
Stomach
Testis
Thyroid gland
(methods of detg. individual hypersensitivity to a pharmaceutical agent from gene expression profile)

IT Macrophage **colony**-stimulating factor receptors
(methods of detg. individual hypersensitivity to a pharmaceutical agent from gene expression profile)

IT **Intestine**
(rectum; methods of detg. individual hypersensitivity to a pharmaceutical agent from gene expression profile)

IT 50-02-2, Dexamethasone 50-06-6, Phenobarbital, biological studies 50-18-0, Cyclophosphamide 50-23-7, Hydrocortisone 50-24-8, Prednisolone 50-28-2, Estradiol, biological studies 50-44-2, 6-Thiopurine 50-48-6, Amitriptyline 50-55-5, Reserpine 50-76-0, Actinomycin D 50-78-2, Aspirin 51-06-9, Procainamide 51-21-8, Fluorouracil 51-34-3, Scopolamine 51-48-9, Levothyroxine, biological studies 51-49-0, Dextrothyroxine 51-55-8, Atropine, biological studies 51-75-2, Mechlorethamine 52-01-7, Spironolactone 52-53-9, Verapamil 52-67-5, Penicillamine 52-86-8, Haloperidol 53-03-2, Prednisone 53-06-5, Cortisone 53-19-0, Mitotane 53-33-8, Paramethasone 53-86-1, Indomethacin 54-05-7, Chloroquine 54-11-5, Nicotine 54-31-9, Furosemide 54-36-4, Metyrapone 54-85-3, Isoniazid 55-63-0, Nitroglycerin 55-65-2, Guanethidine 55-98-1, Busulfan 56-54-2, Quinidine 56-75-7, Chloramphenicol 57-22-7, Vincristine 57-41-0, Phenytoin 57-53-4, Meprobamate 57-63-6, Ethinyl estradiol 57-66-9, Probenecid 57-83-0, Progestin, biological studies 57-96-5, Sulfinpyrazone 58-05-9, Leucovorin 58-14-0, Pyrimethamine 58-32-2, Dipyridamole 58-39-9, Perphenazine 58-54-8, Ethacrynic acid 58-55-9, Theophylline, biological studies

58-61-7, Adenosine, biological studies 58-74-2, Papaverine 58-93-5, Hydrochlorothiazide 58-94-6, Thiazide 59-05-2, Methotrexate 59-42-7, Phenylephrine 59-43-8, Thiamine, biological studies 59-92-7, Levodopa, biological studies 59-99-4, Neostigmine **60-40-2**, Mecamylamine 60-54-8, Tetracycline 60-79-7, Ergonovine 60-87-7, Promethazine 61-32-5, Methicillin 61-72-3, Cloxacillin 64-75-5, Tetracycline hydrochloride 64-77-7, Tolbutamide 64-86-8, Colchicine 65-23-6, Pyridoxine 66-79-5, Oxacillin 66-97-7, Psoralen 67-20-9, Nitrofurantoin 67-45-8, Furazolidone 67-68-5, Dimethyl sulfoxide, biological studies 68-22-4D, Norethindrone, mixt. with ethinyl estradiol 68-41-7, Cycloserine 68-88-2, Hydroxyzine 69-53-4, Ampicillin 69-72-7, biological studies 69-89-6, Xanthine 73-24-5, 6-Aminopurine, biological studies 73-31-4, Melatonin 76-42-6, Oxycodone 76-57-3, Codeine 77-09-8, Phenolphthalein 77-19-0, Dicyclomine 77-36-1, Chlorthalidone 78-44-4, Carisoprodol 80-08-0, Dapsone 81-23-2, Dehydrocholic acid 81-81-2, Warfarin 82-92-8, Cyclizine 82-95-1, Buclizine 83-43-2, Methylprednisolone 83-73-8, Iodoquinol 83-89-6, Quinacrine 83-98-7, Orphenadrine 86-54-4, Hydralazine 89-57-6, Mesalamine 90-34-6, Primaquine 90-82-4, Pseudoephedrine 91-64-5, Coumarin 92-13-7, Pilocarpine 92-84-2, Phenothiazine 93-14-1, Guaifenesin 94-20-2, Chlorpropamide 94-36-0, Benzoyl peroxide, biological studies 94-78-0, Phenazopyridine 95-25-0, Chlorzoxazone 96-64-0, Soman 97-77-8, Disulfiram 99-66-1, Valproic acid 100-33-4, Pentamidine 100-97-0, Methenamine, biological studies 101-31-5, Hyoscyamine 103-90-2, Acetaminophen 113-18-8, Ethchlorvynol 113-42-8, Methylergonovine 113-45-1, Methylphenidate 114-07-8, Erythromycin 114-86-3, Phenformin 118-42-3, Hydroxychloroquine 122-09-8, Phentermine 123-56-8, Succinimide 123-63-7, Paraldehyde 124-94-7, Triamcinolone 125-29-1, Hydrocodone 125-33-7, Primidone 125-64-4, Methyprylon 125-71-3, Dextromethorphan 125-84-8, Aminoglutethimide 126-07-8, Griseofulvin 126-52-3, Ethinamate 127-07-1, Hydroxyurea 127-69-5, Sulfisoxazole 128-13-2, Ursodiol 130-95-0, Quinine 132-17-2, Benztropine 133-10-8, Sodium p-aminosalicylate 137-58-6, Lidocaine 138-56-7, Trimethobenzamide 144-11-6, Trihexyphenidyl 147-52-4, Nafcillin 147-94-4, AraC 148-82-3, Melphalan 154-21-2, Lincomycin 154-42-7, Thioguanine 154-93-8, Carmustine 155-97-5, Pyridostigmine 298-46-4, 5H-Dibenz[b,f]azepine-5-carboxamide 298-50-0, Propantheline 299-42-3, Ephedrine 300-62-9D, Amphetamine, mixed 300-62-9D, Amphetamine, mixed salts 302-17-0, Chloral hydrate 302-79-4, Tretinoin 303-53-7, Cyclobenzaprine 305-03-3, Chlorambucil 315-30-0, Allopurinol 321-64-2, Tacrine 346-18-9, Polythiazide 361-37-5, Methysergide 363-24-6, Dinoprostone 364-62-5, Metoclopramide 378-44-9, Betamethasone 389-08-2, Nalidixic acid 395-28-8, Isoxsuprine 439-14-5, Diazepam 443-48-1, Metronidazole

446-86-6, Azathioprine 456-59-7, Cyclandelate 461-72-3, Hydantoin 463-04-7, Amyl nitrite 469-62-5, Propoxyphene 474-25-9, Chenodiol 480-30-8, Dichloralphenazone 484-23-1, Dihydralazine 503-01-5, Isometheptene 512-15-2, Cyclopentolate 520-85-4, Medroxyprogesterone 525-66-6, Propranolol 526-36-3, Xylometazoline 536-33-4, Ethionamide 541-15-1, Levocarnitine 546-88-3, Acetohydroxamic acid 555-30-6, Methyl dopa 564-25-0, Doxycycline 569-65-3, Meclizine 577-11-7, Docusate sodium 596-51-0, Glycopyrrolate 599-79-1, Sulfasalazine 603-50-9, Bisacodyl 634-03-7, Phendimetrazine 637-07-0, Clofibrate 657-24-9, Metformin 671-16-9, Procarbazine 672-87-7, Metyrosine 674-38-4, Bethanechol 723-46-6, Sulfamethoxazole 738-70-5, Trimethoprim 745-65-3, Alprostadil 791-35-5, Chlophedianol 797-63-7, Levonorgestrel 797-64-8D, L-Norgestrel, ethinyl estradiol mixt. 846-49-1, Lorazepam 846-50-4, Temazepam 911-45-5, Clomiphene 915-30-0, Diphenoxylate 962-58-3, Diazoxon 968-93-4, Testolactone 972-02-1, Diphenidol 990-73-8, Fentanyl citrate 1134-47-0, Baclofen 1143-38-0, Anthralin 1321-13-7, Potassium aminobenzoate 1397-89-3, Amphotericin B 1400-61-9, Nystatin 1404-04-2, Neomycin 1404-04-2D, Neomycin, mixt. with polymx/HC 1404-90-6, Vancomycin 1406-05-9, Penicillin 1491-59-4, Oxymetazoline 1622-61-3, Clonazepam 1953-02-2, Tiopronin 1977-10-2, Loxapine 2152-34-3, Pemoline 2152-44-5, Betamethasone valerate 2447-57-6, Sulfadoxine 2451-01-6, Terpin hydrate 2609-46-3, Amiloride 2809-21-4 2998-57-4, Estramustine 3116-76-5, Dicloxacillin 3313-26-6, Thiothixene 3385-03-3, Flunisolide 3485-14-1, Cyclacillin 3737-09-5, Disopyramide 3778-73-2, Iphosphamide 3930-20-9, Sotalol 4205-90-7, Clonidine
(methods of detg. individual hypersensitivity to a pharmaceutical agent from gene expression profile)

IT 107-97-1, Sarcosin 447-41-6, Nylidrin 8056-51-7 9000-86-6, Alanine aminotransferase 9000-97-9 9001-05-2, Catalase 9001-40-5, Glucose-6-phosphate dehydrogenase 9001-48-3, Glutathione reductase 9001-50-7, Glyceraldehyde 3-phosphate dehydrogenase 9001-62-1, Hepatic lipase 9001-84-7, Phospholipase A2 9002-03-3, Dihydrofolate reductase 9002-06-6, Thymidine kinase 9002-12-4, Urate oxidase 9002-67-9, Luteinizing hormone 9003-99-0, Myeloperoxidase 9012-25-3, Catechol-O-methyltransferase 9012-38-8, PAPS synthetase 9012-39-9 9012-52-6, S-Adenosylmethionine synthetase 9013-08-5, Phosphoenolpyruvate carboxykinase 9013-18-7, Fatty acyl-CoA synthetase 9013-38-1, Dopamine .beta.-hydroxylase 9013-66-5, Glutathione peroxidase 9013-79-0, Neuropathy target esterase 9014-55-5, Tyrosine aminotransferase 9015-71-8, Corticotropin releasing hormone 9015-81-0, 17-.beta. Hydroxysteroid dehydrogenase 9016-12-0, Hypoxanthine-guanine phosphoribosyltransferase 9023-44-3, Tryptophanyl-tRNA synthetase 9023-62-5, Glutathione synthetase 9023-64-7, .gamma.-Glutamylcysteinyl synthetase 9023-70-5,

Glutamine synthetase 9024-60-6, Ornithine decarboxylase 9024-61-7, Histidine decarboxylase 9025-32-5, Prolidase 9026-00-0, Cholesterol esterase 9026-09-9, Phenol sulfotransferase 9026-43-1, Serine kinase 9026-51-1, Nucleoside diphosphate kinase 9027-13-8, Enoyl-CoA hydratase 9027-65-0, Acyl-CoA dehydrogenase 9028-06-2 9028-31-3, Aldose reductase 9028-35-7, HMG CoA reductase 9028-41-5, Hydroxyacyl-Coenzyme A dehydrogenase 9028-86-8, Aldehyde dehydrogenase 9029-73-6, Phenyl alanine hydroxylase 9029-80-5, Histamine N-methyltransferase 9029-97-4, 3-Ketoacyl-CoA thiolase 9031-37-2, Ceruloplasmin 9031-54-3, Sphingomyelinase 9031-61-2, Thymidylate synthase 9031-72-5, Alcohol dehydrogenase 9032-20-6, DT-Diaphorase 9032-76-2 9035-58-9, Blood-coagulation factor III 9036-22-0, Tyrosine hydroxylase 9037-21-2, Tryptophan hydroxylase 9037-62-1, Glycyl tRNA synthetase 9039-06-9, NADPH cytochrome P450 reductase 9040-57-7, Ribonucleotide reductase 9041-92-3 9045-77-6, Fatty acid synthase 9046-27-9, .gamma.-Glutamyl transpeptidase 9048-63-9, Epoxide hydrolase 9055-67-8, Poly(ADP-ribose)polymerase 9059-25-0, Lysyl oxidase 9068-41-1, Carnitine palmitoyltransferase 9074-02-6, Malic enzyme 9074-10-6, Biliverdin reductase 9074-19-5, Hydratase 9074-87-7, .gamma.-Glutamyl hydrolase 9081-36-1, 25-Hydroxyvitamin D3 1-hydroxylase 11096-26-7, Erythropoietin 37205-63-3, ATP synthase 37237-44-8, Glucosylceramide synthase 37289-06-8, Acid ceramidase 37292-81-2, Cytochrome p 450 11A1 37318-49-3, Protein disulfide isomerase 39391-18-9, Prostaglandin H synthase 56093-23-3, .alpha.-1,2-Fucosyl transferase 56645-49-9, Cathepsin G 59536-73-1, Phosphomannomutase 59536-74-2, Very long-chain acyl-CoA dehydrogenase 60267-61-0, Ubiquitin 60616-82-2, Cathepsin L 61116-22-1, Fatty acyl-CoA oxidase 62229-50-9, Epidermal growth factor 67339-09-7, Thiopurine methyltransferase 67763-96-6, Insulin-like growth factor 1 67763-97-7, Insulin-like growth factor II 77271-19-3, 6-O-Methylguanine-DNA methyltransferase 77847-96-2, Prostacyclin-stimulating factor 79747-53-8, Protein tyrosine phosphatase 79955-99-0, Stromelysin-1 80146-85-6, Tissue Transglutaminase 80295-41-6, Complement component C3 81627-83-0, **Colony** stimulating factor -1 82391-43-3, 12-Lipoxygenase 83268-44-4 83869-56-1, Granulocyte-macrophage **colony**-stimulating factor 85637-73-6, Atrial natriuretic factor 87397-91-9, Thymosin .beta.10 88943-21-9, Proteinase .alpha.1-inhibitor III 89964-14-7, Prothymosin, alpha 90698-26-3, Ribosomal protein S6 kinase 96024-44-1, Granulin 105238-46-8, Macropain 106096-92-8, Fibroblast growth factor, acidic 106956-32-5, Oncostatin M 112130-98-0, Procathepsin L 114949-22-3, Activin (protein) 117698-12-1, Paraoxonase 119418-04-1, Galanin 122191-40-6, Caspase-1 123626-67-5, Endothelin-1 125978-95-2, Nitric oxide synthase 127464-60-2, Vascular endothelial growth

factor 137632-07-6, Extracellular-signal-regulated kinase 1 138238-81-0, Endothelin converting enzyme-1 140208-24-8, Tissue inhibitor of metalloproteinase-1 141176-92-3 141349-86-2, Cyclin dependent kinase 2 141436-78-4, Protein kinase C 142243-03-6, Plasminogen activator inhibitor 2 142805-56-9, DNA topoisomerase II 142805-58-1, MAP kinase kinase 143180-75-0, DNA topoisomerase I 143375-65-9, Cyclin dependent kinase 1 145809-21-8, Tissue inhibitor of metalloproteinase-3 146480-35-5, Matrix metalloproteinase-2 147014-97-9, Cyclin dependent kinase 4 148348-15-6, Fibroblast growth factor 7 149316-81-4, Branched chain acyl-CoA oxidase 149371-05-1, Kinase (phosphorylating), gene c-abl protein 149885-78-9, Hepatocyte growth factor activator 154907-65-0, Checkpoint kinase 155807-64-0, FEN-1 Endonuclease 165245-96-5, p38 Mitogen-activated protein kinase 169592-56-7, CPP32 proteinase 179241-70-4, Protein kinase ZPK 179241-78-2, Caspase 8 182372-14-1, Caspase 2 182372-15-2, Caspase 6 182762-08-9, Caspase 4 189258-14-8, Caspase 7 192465-11-5, Caspase 5 193363-12-1, Vascular endothelial growth factor D 194554-71-7, Tissue factor pathway inhibitor 205944-50-9, Osteoprotegerin 220983-94-8, Sorbitol dehydrogenase 289898-51-7, JNK1 protein kinase 303752-61-6, DNA dependent protein kinase 329736-03-0, Cytochrome p450 3A4 329764-85-4, Cytochrome p450 1A1 329900-75-6, Cyclooxygenase 2 329978-01-0, Cytochrome p450 2C9 330196-64-0, Cytochrome p450 1A2 330196-93-5, Cytochrome p450 2E1 330207-10-8, Cytochrome p450 2B1 330589-90-7, Cytochrome p450 2C19 330596-22-0, Cytochrome p450 1B1 330597-62-1, Cytochrome p450 2D6 330975-22-9, Macrostatin 331462-97-6, Cytochrome p450 2B2 331462-98-7, Cytochrome p450 3A1 331823-00-8, Cytochrome p450 2C11 331823-12-2, Cytochrome p450 2C12 331823-27-9, Cytochrome p450 2A1 331827-06-6, Cytochrome p450 2A6 332847-52-6, Cytochrome p450 4A 336884-26-5, Cytochrome p450 2B10 338964-08-2, P 450 17A 338969-62-3, P 450 2A3 338969-69-0, P 450 2F2 338969-71-4, P 450 4A1

(methods of detg. individual hypersensitivity to a pharmaceutical agent from gene expression profile)

L17 ANSWER 7 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	2000:420906 HCAPLUS
DOCUMENT NUMBER:	133:53722
TITLE:	Exo-R-mecamylamine formulation and use in treatment
INVENTOR(S):	Shytle, Douglas; Sanberg, Paul; Newman, Mary; Silver, Archie
PATENT ASSIGNEE(S):	University of South Florida, USA
SOURCE:	PCT Int. Appl., 40 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English

FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

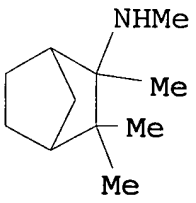
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000035280	A1	20000622	WO 1999-US30137	19991216
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2393442	AA	20000622	CA 1999-2393442	19991216
EP 1139744	A1	20011010	EP 1999-967396	19991216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002532393	T2	20021002	JP 2000-587609	19991216
EP 1634498	A2	20060315	EP 2005-24899	19991216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
US 2002016370	A1	20020207	US 2001-882934	20010615
PRIORITY APPLN. INFO.:			US 1998-112534P P	19981216
			EP 1999-967401 A3	19991216
			WO 1999-US30137 W	19991216

AB A pharmaceutical compn. includes a therapeutically effective amt. of exo-R-mecamylamine or a pharmaceutically acceptable salt thereof, substantially free of exo-S-mecamylamine, in combination with a pharmaceutically acceptable carrier. Preferably the amt. is about 0.5 mg to about 20 mg. Medical conditions are treated by administering a therapeutically effective amt. of exo-R-mecamylamine, or a pharmaceutically acceptable salt thereof, substantially free of its exo-S-mecamylamine, said amt. being sufficient to ameliorate the medical condition. The medical conditions include but are not limited to substance addiction (involving nicotine, cocaine, alc., amphetamine, opiate, other psychostimulant and a combination thereof), aiding smoking cessation, treating wt. gain assocd. with smoking cessation, hypertension, hypertensive crisis, Tourette's Syndrome and other tremors, cancer (such as small cell lung cancer), atherogenic profile, neuropsychiatric disorders (such as bipolar disorder, depression, an anxiety disorder, schizophrenia, a seizure disorders, Parkinson's disease and attention deficit hyperactivity disorder), chronic fatigue syndrome, Crohn's disease, autonomic dysreflexia, and spasmogenic **intestinal** disorders.

IT **60-40-2**, Mecamylamine
(exo-R-mecamylamine formulation and therapeutic use)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)

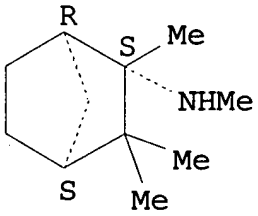


IT **107538-05-6 107538-06-7**
(exo-R-mecamylamine formulation and therapeutic use)

RN 107538-05-6 HCAPLUS

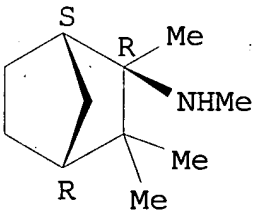
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl-, (1R,2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 107538-06-7 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl-, (1S,2R,4R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM A01N033-18
ICS A01N033-24
CC 1-12 (Pharmacology)
Section cross-reference(s): 63
ST mecamylamine isomer pharmaceutical therapeutic; drug addiction treatment mecamylamine isomer; wt gain smoking cessation mecamylamine isomer; hypertension Tourette syndrome cancer mecamylamine isomer; cardiovascular neuropsychiatric **gastrointestinal** disease mecamylamine isomer
IT **Intestine**, disease
(Crohn's; exo-R-mecamylamine formulation and therapeutic use)
IT Drugs
(**gastrointestinal**; exo-R-mecamylamine formulation and therapeutic use)
IT **Intestine**, disease
(spasmogenic; exo-R-mecamylamine formulation and therapeutic use)
IT **60-40-2**, Mecamylamine
(exo-R-mecamylamine formulation and therapeutic use)
IT **107538-05-6 107538-06-7**
(exo-R-mecamylamine formulation and therapeutic use)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 8 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:420905 HCAPLUS
DOCUMENT NUMBER: 133:53721
TITLE: Exo-S-mecamylamine formulation and use in treatment
INVENTOR(S): Shytle, Douglas; Sanberg, Paul; Newman, Mary; Silver, Archie
PATENT ASSIGNEE(S): University of South Florida, USA
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000035279	A1	20000622	WO 1999-US30153	19991216
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2393437	AA	20000622	CA 1999-2393437	19991216
EP 1139743	A1	20011010	EP 1999-967401	19991216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002532392	T2	20021002	JP 2000-587608	19991216
EP 1634498	A2	20060315	EP 2005-24899	19991216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
US 2002016371	A1	20020207	US 2001-882935	20010615
US 6734215	B2	20040511		

US 2004044083 A1 20040304 US 2003-441947 200309 23

PRIORITY APPLN. INFO.: US 1998-112534P P 199812 16

EP 1999-967401 A3 199912 16

WO 1999-US30153 W 199912 16

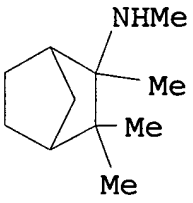
US 2001-882935 A1 200106 15

AB A pharmaceutical compn. includes a therapeutically effective amt. of exo-S-mecamylamine or a pharmaceutically acceptable salt thereof, substantially free of exo-R-mecamylamine, in combination with a pharmaceutically acceptable carrier. Preferably the amt. is about 0.5 mg to about 20 mg. Medical conditions are treated by administering a therapeutically effective amt. of exo-S-mecamylamine, or a pharmaceutically acceptable salt thereof, substantially free of exo-R-mecamylamine, the amt. being sufficient to ameliorate the medical condition. The medical conditions include but are not limited to substance addiction (involving nicotine, cocaine, alc., amphetamine, opiate, other psychostimulant and a combination thereof), aiding smoking cessation, treating wt. gain assocd. with smoking cessation, hypertension, hypertensive crisis, Tourette's Syndrome and other tremors, cancer (such as small cell lung cancer), atherogenic profile, neuropsychiatric disorders (such as bipolar disorder, depression, an anxiety disorder, schizophrenia, a seizure disorder, Parkinson's disease and attention deficit hyperactivity disorder), chronic fatigue syndrome, Crohn's disease, autonomic dysreflexia, and spasmogenic **intestinal** disorders.

IT **60-40-2**, Mecamylamine
(exo-S-mecamylamine formulation and therapeutic use)

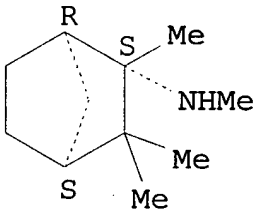
RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



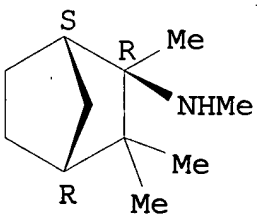
IT **107538-05-6 107538-06-7**
(exo-S-mecamylamine formulation and therapeutic use)
RN 107538-05-6 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl-, (1R,2S,4S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 107538-06-7 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl-, (1S,2R,4R)-(9CI) (CA INDEX NAME)

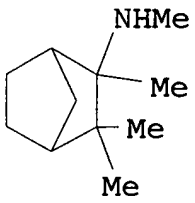
Absolute stereochemistry.



IC ICM A01N033-02
CC 1-12 (Pharmacology)
Section cross-reference(s): 63
ST mecamylamine isomer pharmaceutical therapeutic; drug addiction treatment mecamylamine isomer; wt gain smoking cessation mecamylamine isomer; hypertension Tourette syndrome cancer mecamylamine isomer; cardiovascular neuropsychiatric **gastrointestinal** disease mecamylamine isomer
IT **Intestine**, disease

(Crohn's; exo-S-mecamylamine formulation and therapeutic use)
IT Drugs
(**gastrointestinal**; exo-S-mecamylamine formulation and therapeutic use)
IT **Intestine**, disease
(spasmogenic; exo-S-mecamylamine formulation and therapeutic use)
IT **60-40-2**, Mecamylamine
(exo-S-mecamylamine formulation and therapeutic use)
IT **107538-05-6 107538-06-7**
(exo-S-mecamylamine formulation and therapeutic use)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 9 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:74167 HCAPLUS
DOCUMENT NUMBER: 132:206290
TITLE: Role of the enteric nervous system in the fluid and electrolyte secretion of rotavirus diarrhea
AUTHOR(S): Lundgren, Ove; Peregrin, Attila Timar; Persson, Kjell; Kordasti, Shirin; Uhnoo, Ingrid; Svensson, Lennart
CORPORATE SOURCE: Department of Physiology, Goteborg University, Goteborg, S-405 30, Swed.
SOURCE: Science (Washington, D. C.) (2000), 287(5452), 491-495
CODEN: SCIEAS; ISSN: 0036-8075
PUBLISHER: American Association for the Advancement of Science
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The mechanism underlying the **intestinal** fluid loss in rotavirus diarrhea, which often afflicts children in developing countries, is not known. One hypothesis is that the rotavirus evokes **intestinal** fluid and electrolyte secretion by activation of the nervous system in the **intestinal** wall, the enteric nervous system (ENS). 4 Different drugs that inhibit ENS functions were used to obtain exptl. evidence for this hypothesis in mice in vitro and in vivo. The involvement of the ENS in rotavirus diarrhea indicates potential sites of action for drugs in the treatment of the disease.
IT **60-40-2**, Mecamylamine
(enteric nervous system in the fluid and electrolyte secretion in rotavirus diarrhea)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 14-3 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 1
ST rotavirus diarrhea **intestine** nervous system electrolyte; drug enteric nervous system rotavirus diarrhea
IT Electrolytes, biological
Intestinal juice
Rotavirus
(enteric nervous system in the fluid and electrolyte secretion in rotavirus diarrhea)
IT 58-55-9, Theophylline, biological studies **60-40-2**, Mecamylamine 137-58-6, Lidocaine 4368-28-9, Tetrodotoxin
(enteric nervous system in the fluid and electrolyte secretion in rotavirus diarrhea)
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 10 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:548534 HCAPLUS
DOCUMENT NUMBER: 129:171769
TITLE: Pharmaceutical composition for treatment of synaptic dysfunction comprising an oxime
INVENTOR(S): Viner, Norman M.
PATENT ASSIGNEE(S): Synapse Pharmaceuticals International, Inc., Can.
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9834615	A1	19980813	WO 1998-CA94	19980205

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,

DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, US, US, US, US, US, US, US, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 6166032	A	20001226	US 1997-797251	19970207
US 5900418	A	19990504	US 1997-795247	19970210
US 5981549	A	19991109	US 1997-801802	19970214
US 5760049	A	19980602	US 1997-803723	19970221
US 5824684	A	19981020	US 1997-803722	19970221
US 5902816	A	19990511	US 1997-803721	19970221
US 5916903	A	19990629	US 1997-807273	19970228
CA 2279531	AA	19980813	CA 1998-2279531	19980205
ZA 9800960	A	19980817	ZA 1998-960	19980205
AU 9859775	A1	19980826	AU 1998-59775	19980205
EP 1014981	A1	20000705	EP 1998-902893	19980205

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

JP 2001511159	T2	20010807	JP 1998-533466	19980205

PRIORITY APPLN. INFO.: US 1997-797251 A2 19970207

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US 1997-795247	A2	199702 10
US 1997-801801	A2	199702 14
US 1997-801802	A2	199702 14
US 1997-803719	A2	199702 21
US 1997-803721	A2	199702 21
US 1997-803722	A2	199702 21
US 1997-803723	A2	199702 21
US 1997-807273	A2	199702 28
WO 1998-CA94	W	199802 05

OTHER SOURCE(S): MARPAT 129:171769

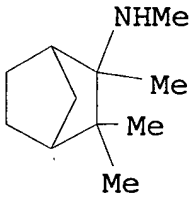
AB A pharmaceutical compn. is provided for treatment of chronic symptoms of synaptic dysfunction and related disease disorders comprising an effective amt. of a pharmaceutically acceptable oxime which is physiol. active such as an acetylcholine esterase reactivator optionally in assocn. with an addnl. pharmacol. active agent. The pharmaceutical compn. has wide-ranging applicability in the treatment of withdrawal symptoms due to the cessation of tobacco use, respiratory disease, drug and alc. addiction, disorders of the central and peripheral nervous systems, treatment of antineoplastic

disease as well as the redn. of adverse effects of antineoplastic disease treatment, cardiac disorders and circulatory disease, obesity, fatigue syndromes, endocrine and immune system disorders, dysfunction of **gastrointestinal** motility and irritable **bowel** syndrome, and heavy metal poisoning.

IT **60-40-2**, Mecamylamine
(acetylcholine receptor antagonist; pharmaceutical compn. for treatment of synaptic dysfunction comprising oxime)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM A61K031-46
ICS A61K031-46; A61K031-44

CC 4-8 (Toxicology)
Section cross-reference(s): 1, 63

IT 51-55-8, Atropine, biological studies **60-40-2**, Mecamylamine 87-00-3, Homatropine 13265-10-6, Methscopolamine 31610-87-4, Methylatropine 60205-81-4, Ipratropium
(acetylcholine receptor antagonist; pharmaceutical compn. for treatment of synaptic dysfunction comprising oxime)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 11 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:372609 HCAPLUS
DOCUMENT NUMBER: 129:37451
TITLE: Method for controlling tobacco use and alleviating withdrawal symptoms due to cessation of tobacco use
INVENTOR(S): Viner, Norman
PATENT ASSIGNEE(S): Synapse Pharmaceuticals International, Inc., Can.
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5760049	A	19980602	US 1997-803723	19970221
CA 2279531	AA	19980813	CA 1998-2279531	19980205
WO 9834615	A1	19980813	WO 1998-CA94	19980205
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, US, US, US, US, US, US, US, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9859775	A1	19980826	AU 1998-59775	19980205
EP 1014981	A1	20000705	EP 1998-902893	19980205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001511159	T2	20010807	JP 1998-533466	19980205
PRIORITY APPLN. INFO.:			US 1997-797251 A	19970207
			US 1997-795247 A	19970210
			US 1997-801801 A	19970214
			US 1997-801802 A	19970

			14
	US 1997-803719	A	199702 21
	US 1997-803721	A	199702 21
	US 1997-803722	A	199702 21
	US 1997-803723	A	199702 21
	US 1997-807273	A	199702 28
	WO 1998-CA94	W	199802 05

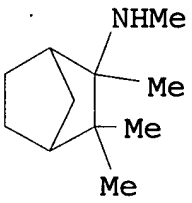
OTHER SOURCE(S): MARPAT 129:37451

AB A method for controlling tobacco use and alleviating withdrawal symptoms due to the cessation of tobacco use comprising administering to a human desiring to control tobacco use and/or suffering from withdrawal due to tobacco use cessation an acetylcholine receptor antagonist and an acetylcholine esterase reactivator as active ingredients in a pharmaceutically acceptable solid matrix material capable of dissoln. and/or disintegration in the mouth or the **gastrointestinal** tract.

IT **60-40-2**, Mecamylamine
(use of acetylcholine receptor antagonist and an acetylcholine esterase reactivator for controlling tobacco use)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM A01N043-42
ICS A61K031-44; A24F047-00
INCL 514291000
CC 4-8 (Toxicology)
IT 51-34-3, Scopolamine 51-55-8, Atropine, biological studies 54-11-5, Nicotine 56-97-3, TMB-4 57-71-6, DAM 59-26-7, Nikethamide **60-40-2**, Mecamylamine 63-75-2, Arecoline 87-00-3, Homatropine 90-69-7, Lobeline 92-13-7, Pilocarpine 94-63-3, 2-PAM 300-54-9, Muscarine 304-84-7, Ethamivan 306-44-5, Pyruvaldehyde aldoxime 486-56-6, Cotinine 674-38-4, Bethanechol 13265-10-6, Methscopolamine 31610-87-4, Methylatropine 60205-81-4, Ipratropium
(use of acetylcholine receptor antagonist and an acetylcholine esterase reactivator for controlling tobacco use)
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

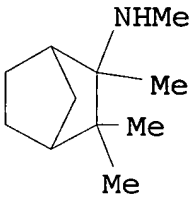
L17 ANSWER 12 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:795298 HCAPLUS
DOCUMENT NUMBER: 128:58570
TITLE: Imidacloprid actions on insect neuronal acetylcholine receptors
AUTHOR(S): Buckingham, S. D.; Lapied, B.; Le Corronc, H.; Grolleau, F.; Sattelle, D. B.
CORPORATE SOURCE: The Babraham Institute Laboratory of Molecular Signalling, Department of Zoology, University of Cambridge, Cambridge, CB2 3EJ, UK
SOURCE: Journal of Experimental Biology (1997), 200(21), 2685-2692
CODEN: JEBIAM; ISSN: 0022-0949
PUBLISHER: Company of Biologists Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The neonicotinoid insecticide imidacloprid acts at three pharmacol. distinct acetylcholine receptor (AChR) subtypes in the cockroach (Periplaneta americana) nervous system, but is ineffective on muscarinic receptors. Imidacloprid (3-100 .mu.mol L-1) induced dose-dependent depolarizations at cockroach cercal afferent/giant

interneurone synapses. These responses were insensitive to 20 .mu.mol L-1 atropine but were completely blocked by the nicotinic antagonist mecamylamine (50 .mu.mol L-1). Similarly, Imidacloprid-induced depolarizations of cultured cockroach dorsal unpaired median (DUM) neurons dissocd. from the same (terminal **abdominal**) ganglion were also completely blocked by 100 .mu.mol L-1 mecamylamine. However, two components of the response could be distinguished on the basis of their differential sensitivities to 0.1 .mu.mol L-1 .alpha.-bungarotoxin (.alpha.-BTX), which selectively blocks AChRs with "mixed" nicotinic/muscarinic pharmacol. in this prepn. This indicates that imidacloprid affects both AChRs sensitive to .alpha.-BTX and .alpha.-BTX-insensitive nicotinic acetylcholine receptors (nAChRs). Thus, in the cockroach, imidacloprid activates .alpha.-BTX-sensitive synaptic nAChRs in giant interneurones, .alpha.-BTX-insensitive extrasynaptic nAChRs in DUM neurons, and a recently characterized DUM neuron "mixed" AChR that is sensitive to both nicotinic and muscarinic ligands. Imidacloprid does not act on muscarinic acetylcholine receptors (mAChRs) present on DUM neuron cell bodies and at the cercal afferent/giant interneurone synapses. Thus, imidacloprid can act on pharmacol. diverse nAChR subtypes.

IT **60-40-2**, Mecamylamine
(imidacloprid actions on insect neuronal acetylcholine receptors inhibition by)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 5-4 (Agrochemical Bioregulators)

IT **60-40-2**, Mecamylamine
(imidacloprid actions on insect neuronal acetylcholine receptors inhibition by)

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 13 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:211830 HCAPLUS

DOCUMENT NUMBER: 124:251818

TITLE: Method and device for screening agents that stimulate adrenal catecholamine secretion
INVENTOR(S): Watanabe, Takuya; Shimamoto, Norio
PATENT ASSIGNEE(S): Takeda Chemical Industries Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

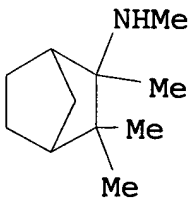
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08012591	A2	19960116	JP 1994-146846	19940628

PRIORITY APPLN. INFO.: JP 1994-146846 19940628

AB Disclosed are analogs and salts of pituitary adenylate cyclase-activating peptide (PACAP) that can stimulate secretion of catecholamine from adrenal gland of a warm-blooded animal. Also disclosed are methods and app. for performing the screening test. The testing app. comprises microinfusion pump, teflon tubes, fraction collector, microinjection cannula, microdialysis probe, cellulose membrane, needles, etc. In example, the catecholamine secretion stimulating effect of vasoactive **intestinal** peptide, carbachol, and PACAP38 was demonstrated.

IT **60-40-2**, Mecamylamine
(pituitary adenylate cyclase-activating peptides and method and device for screening agents that stimulate adrenal catecholamine secretion from adrenal gland of warm-blooded animal)

RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM A61K038-00

ICS A61K038-00; C07K014-47
ICA G01N033-50
CC 2-5 (Mammalian Hormones)
IT 51-41-2, Noradrenaline 51-43-4, Adrenaline 37221-79-7, Vasoactive **intestinal** peptide 128606-20-2, PACAP38 129069-75-6, PACAP27 137061-48-4D, Pituitary adenylate cyclase-activating peptide, analogs; derivs.; and salts
(pituitary adenylate cyclase-activating peptides and method and device for screening agents that stimulate adrenal catecholamine secretion from adrenal gland of warm-blooded animal)
IT 51-55-8, Atropin, biological studies 51-83-2, Carbachol **60-40-2**, Mecamylamine
(pituitary adenylate cyclase-activating peptides and method and device for screening agents that stimulate adrenal catecholamine secretion from adrenal gland of warm-blooded animal)

L17 ANSWER 14 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:502743 HCAPLUS
DOCUMENT NUMBER: 111:102743
TITLE: Sustained-release pharmaceutical matrixes containing polymer blends having reverse phase morphology and giving a zero-order rate
INVENTOR(S): Kashdan, David S.
PATENT ASSIGNEE(S): Eastman Kodak Co., USA
SOURCE: U.S., 21 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4795641	A	19890103	US 1987-87566	19870820
CA 1319468	A1	19930629	CA 1988-571672	19880711
EP 303853	A2	19890222	EP 1988-111876	19880723
EP 303853	A3	19901122		
EP 303853	B1	19930922		
R: CH, DE, FR, GB, LI				
JP 01090231	A2	19890406	JP 1988-204825	19880818

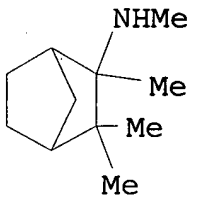
PRIORITY APPLN. INFO.: US 1987-87566 A 19870819

AB Disclosed are polymer blends contg. up to 40% by wt. an insol. cellulose acetate polymer (20-44% acetyl content) and >60% by wt. a sol. cellulose acetate phthalate, cellulose acetate trimellitate, and cellulose acetate succinate polymer. The blends have reverse phase morphol., i.e., wherein the sol. polymer phase comprises regions in the insol. continuous polymer phase. The blends are useful for zero-order controlled delivery of bioactive agents such as pharmaceutical and agricultural chems. Films made of a mixt. of 25% cellulose acetate (39.4% acetyl) and 75% cellulose acetate succinate, were loaded with 5, 10 or 20% dextromethorphan. At 5 and 10% loading, zero-order release was shown in simulated **intestinal** fluid, for 2.5 h, subsequent to an initial 5-min burst. At 20% loading, a greater burst effect was shown. Reverse-phase morphol. of the polymer matrix led to the retention of the structural integrity of the matrix after extn. of the sol. polymer.

IT **60-40-2**, Mecamylamine
(sustained-release formulation contg. polymer matrix and, reverse-phase morphol. in alk. medium in relation to)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



IC A61K009-26; C08L001-08; C09S003-04

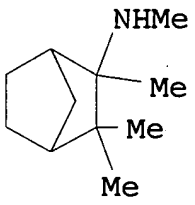
INCL 424438000

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 5

IT 58-08-2, Caffeine, biological studies 58-25-3, Chlordiazepoxide 58-55-9, Theophylline, biological studies 59-42-7, Phenylephrine **60-40-2**, Mecamylamine 64-43-7, Sodium amobarbital 69-72-7, uses and miscellaneous 76-57-3, Codeine 89-57-6, 5-Aminosalicylic acid 93-14-1, Guaifenesin 103-90-2, Acetaminophen 113-92-8 114-07-8, Erythromycin 299-42-3 300-62-9, Amphetamine 439-14-5, Diazepam 599-79-1, Sulfasalazine

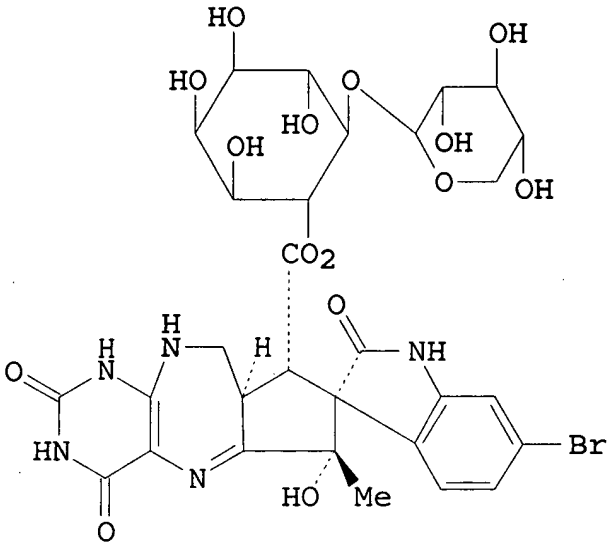
674-38-4, Bethanechol 7439-89-6D, Iron, salts 7439-93-2D, Lithium, compds. 7447-40-7, Potassium chloride, biological studies 9004-10-8, Insulin, biological studies 15687-27-1 17617-23-1, Flurazepam 51481-61-9, Cimetidine 66357-35-5, Ranitidine 50-33-9, Phenylbutazone, uses and miscellaneous 50-78-2 51-34-3, Scopolamine 51-43-4, Epinephrine 51-55-8, Atropine, biological studies 54-11-5, Nicotine 56-54-2D, Quindine, derivs. 57-27-2, Morphine, biological studies
(sustained-release formulation contg. polymer matrix and, reverse-phase morphol. in alk. medium in relation to)

L17 ANSWER 15 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:548403 HCAPLUS
DOCUMENT NUMBER: 101:148403
TITLE: Chloride transport across the isolated hen **colon**
AUTHOR(S): Munck, B. G.; Andersen, V.; Voldsgaard, P.
CORPORATE SOURCE: Inst. Med. Physiol., Panum Inst., Copenhagen, DK-2200, Den.
SOURCE: Falk Symposium (1984), 36(Intest. Absorpt. Secretion), 373-85
CODEN: FASYDI; ISSN: 0161-5580
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the **colon** of Na+-depleted ends, amiloride eliminated net absorption of Cl-, presumably by hyperpolarizing the luminal membrane. In both Na+-depleted and Na+-loaded ends, theophylline induced net Cl- secretion by the **colon** by increasing serosal-to-mucosal Cl- flux (JClsm), and also increased the short-circuit current (Isc) and the tissue conductance (Gt); these effects increased with increasing Cl- concn. In **colons** from Na+-loaded ends, decreasing the Na+ concn. to .ltoreq.30 mM eliminated the rectification of Cl- transport. VIP and cAMP acted as secretagogues, increasing Isc, JClsm, and Gt. To antisecretagogues, chlorpromazine and mecamylamine, decreased JClsm and Isc; chloropromazine also decreased Gt, but mecamylamine did not.
IT **60-40-2**
(chloride transports by **colon** of chicken response to)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 12-2 (Nonmammalian Biochemistry)
ST chloride transport **colon** sodium
IT Electric potential, biological
(of **colon**, of chicken, drugs and sodium effect on, chloride transport in relation to)
IT **Intestine**, metabolism
(**colon**, chloride transport by, of chicken, drugs and sodium effects on)
IT 7440-23-5, biological studies
(chloride transport by **colon** of chicken in relation to)
IT 50-53-3, biological studies 58-55-9, biological studies **60-40-2** 60-92-4 2609-46-3 37221-79-7
(chloride transports by **colon** of chicken response to)
IT 16887-00-6, biological studies
(transport of, by **colon** of chicken, drugs and sodium effects on)

L17 ANSWER 16 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:504697 HCAPLUS
DOCUMENT NUMBER: 101:104697
TITLE: Neosurugatoxin, a specific antagonist of nicotinic acetylcholine receptors
AUTHOR(S): Hayashi, E.; Isogai, M.; Kagawa, Y.; Takayanagi, N.; Yamada, S.
CORPORATE SOURCE: Dep. Pharmacol., Shizuoka Coll. Pharm. Sci., Shizuoka, 422, Japan
SOURCE: Journal of Neurochemistry (1984), 42(5), 1491-4
CODEN: JONRA9; ISSN: 0022-3042
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



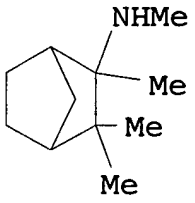
I

AB Neosurugatoxin (NSTX) (I) [80680-43-9] (3 nM-30 nM), recently isolated from the Japanese ivory mollusk (Babylonia japonica) exerted a potent antinicotinic action in the isolated guinea pig ileum. Specific 3H-labeled nicotine [54-11-5] binding to rat forebrain membranes was saturable, reversible, and of high affinity. Nicotinic cholinergic agonists exhibited a markedly greater affinity for [3H]nicotine binding sites than a muscarinic agonist, oxotremorine. Although .alpha.-bungarotoxin had no effect on [3H]nicotine binding, low concns. (1 nM-1 .mu.M) of NSTX inhibited [3H]nicotine binding in the forebrain membranes and its IC50 value was 69 nM. On the other hand, NSTX did not affect muscarinic receptor binding in the brain. Thus, NSTX may be of appreciable interest as a neurotoxin with a selective affinity for ganglionic nicotine receptors.

IT **60-40-2**
(nicotine binding by brain membrane inhibition by, neosurugatoxin in relation to)

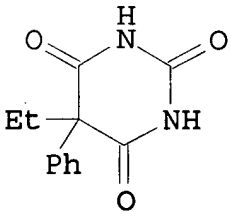
RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 2-8 (Mammalian Hormones)
IT **Intestine**
(ileum, contraction of, from nicotine, neosurugatoxin antagonism of)
IT 51-55-8, biological studies 54-77-3 57-94-3 57-95-4 60-26-4 **60-40-2** 70-22-4 90-69-7 11032-79-4 25162-00-9
(nicotine binding by brain membrane inhibition by, neosurugatoxin in relation to)

L17 ANSWER 17 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1977:11689 HCAPLUS
DOCUMENT NUMBER: 86:11689
TITLE: Drug absorption from the irradiated rat small **intestine** in situ
AUTHOR(S): Venho, V. M. K.
CORPORATE SOURCE: Dep. Pharmacol., Univ. Helsinki, Helsinki, Finland
SOURCE: Arzneimittel-Forschung (1976), 26(10), 1870-5
CODEN: ARZNAD; ISSN: 0004-4172
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

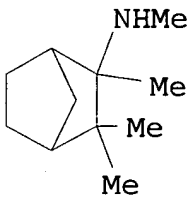
AB Phenobarbitone (I) [50-06-6], sulfafurazole [127-69-5], mecamylamine [**60-40-2**], quinidine [56-54-2], and isoniazid [54-85-3] were administered to rats irradiated at 750 Rad with 60Co. The absorption of these drugs from the **intestinal** lumen was decreased by the radiation. The absorption of I, sulfafurazole, and mecamylamine returned to the control level 6 days after irradn., but

that of quinidine and isoniazid was still retarded. The drugs injected i.v. were not significantly transported into the **intestinal** contents and the radiation had no effect. The concn. of mecamylamine and quinidine in the blood was decreased by irradn. Blood levels of drugs did not correlate with the rate of disappearance of drugs from the **intestinal** lumen. The time-dependent and reversible decrease in absorption of the drugs appeared to be due to a secondary effect on irradn. on the **intestinal** wall.

IT **60-40-2**
(absorption of, by **intestine**, after irradn.)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 1-2 (Pharmacodynamics)
Section cross-reference(s): 8

ST **intestine** drug absorption radiation; phenobarbitone **intestine** absorption radiation; sulfafurazole **intestine** absorption radiation; mecamylamine **intestine** absorption radiation; quinidine **intestine** absorption radiation; isoniazid **intestine** absorption radiation

IT Radiation, biological effects
(on pharmaceutical absorption from **intestine**)

IT **Intestine**, metabolism
(pharmaceutical absorption by, after irradn.)

IT 50-06-6, biological studies 54-85-3 56-54-2 **60-40-2** 127-69-5
(absorption of, by **intestine**, after irradn.)

L17 ANSWER 18 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1970:529351 HCAPLUS

DOCUMENT NUMBER: 73:129351

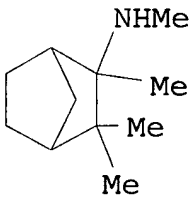
TITLE: Effects of altered propulsion on rat small **intestinal** flora

AUTHOR(S): Summers, Robert W.; Kent, Thomas H.

CORPORATE SOURCE: Coll. Med., Univ. Iowa, Iowa City, IA, USA

SOURCE: Gastroenterology (1970), 59(5), 740-4

CODEN: GASTAB; ISSN: 0016-5085
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Inhibitors of the **gastrointestinal** propulsion, such as mecamylamine, slightly increased the population of some organisms, such as coliforms, whereas stimulators of the propulsion, such as tolazoline, and fasting decreased the population. Population overgrowth occurred with extreme stagnation from ileal obstruction. Indomethacin-induced ulceration and whole body x-irradn., which led to mucosal damage and increased the propulsion, were assocd. with an overgrowth of bacteria, suggesting that extreme forms of stagnation were not necessary to produce a significant bacterial overgrowth.
IT **60-40-2**
(bacterial flora of **intestines** in response to)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 15 (Pharmacodynamics)
ST **gastrointestinal** propulsion bacterial flora; bacterial flora ulcers irradn; ulcers irradn bacterial flora; irradn ulcers bacterial flora; peristalsis **intestinal** flora; **intestinal** flora peristalsis; flora **intestinal** peristalsis
IT Ulcers
(bacterial flora of **intestines** in)
IT Bacteria
(**intestinal**, altered propulsion effect on)
IT X-rays, biological effects
(on bacterial flora of **intestines**)
IT 59-98-3 **60-40-2**
(bacterial flora of **intestines** in response to)

L17 ANSWER 19 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1970:529350 HCAPLUS
DOCUMENT NUMBER: 73:129350
TITLE: Effects of drugs, ileal obstruction, and irradiation on rat **gastrointestinal** propulsion

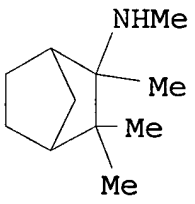
AUTHOR(S): Summers, Robert W.; Kent, Thomas H.; Osborne, James W.
CORPORATE SOURCE: Coll. Med., Univ. Iowa, Iowa City, IA, USA
SOURCE: Gastroenterology (1970), 59(5), 731-9
CODEN: GASTAB; ISSN: 0016-5085
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Mecamylamine, chlorisondamine, and morphine significantly inhibited the rat **gastrointestinal** propulsion when detd. after intragastric and intraduodenal administration of the test soln. contg. 51Cr, whereas indomethacin-induced ulceration and whole body x-irradn. stimulated the **intestinal** clearance. Tolazine and neostigmine increased the net propulsion by the intragastric technique, but not by the intraduodenal method.

IT **60-40-2**
(digestive tract emptying in response to)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 15 (Pharmacodynamics)

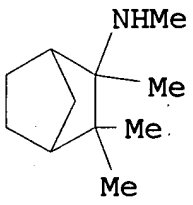
ST **gastrointestinal** propulsion drugs; peristalsis irradn drugs; drugs irradn peristalsis; ulceration irradn **intestines**; irradn ulceration **intestines**; **intestines** ulceration irradn

IT 57-27-2, biological studies 59-99-4 **60-40-2** 69-27-2 1016-94-0
(digestive tract emptying in response to)

L17 ANSWER 20 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1966:438527 HCAPLUS
DOCUMENT NUMBER: 65:38527
ORIGINAL REFERENCE NO.: 65:7176c-g
TITLE: Ganglioplegic and hypotensive activity of piperazine salts
AUTHOR(S): Massarani, E.; Nardi, D.; Riva, M.
CORPORATE SOURCE: Lab. Ric. Chim. Terapeutica "Vister,", Milan
SOURCE: Farmaco, Edizione Scientifica (1965), 20(9), 662-72

CODEN: FRPSAX; ISSN: 0430-0920
DOCUMENT TYPE: Journal
LANGUAGE: Italian
GI For diagram(s), see printed CA Issue.
AB Previous studies (CA 64, 17594b), led to the prep. of piperazine salts (I and II) where R = 2-biphenylyl (III), 4-biphenylyl (IV), 4-stilbenyl (V), and p-phenethylphenyl (VI), whose ganglioplegic and hypotensive activity were investigated. These compds. show ganglionic blocking activity in vitro abolishing the peristaltic reflex of the isolated guinea pig **intestine** and are ganglionic blocking and hypotensive agents also in the cat. Condensation of 1-chloro-2-(4-methyl-1-piperazinyl)ethane with a corresponding phenol in a nonpolar solvent with NaNH2 yielded a mixt. which was difficult to sep. Thus, ROCH2CH2Br (VII), prepd. according to Massarani (M., et al., CA 54, 10951c), were used to give I and II. The following VII were prepd. (R, b.p./0.2 mm., m.p. (EtOH), and % yield given): III, 103-5.degree., 64.degree., 38; IV, 145-8.degree., 112.degree., 47; VI, 140.degree., 54.degree., 36. VII (0.04 mole) and 0.2 mole 1-methyl-piperazine in 300 cc. abs. EtOH and 0.06 mole NaHCO3 refluxed 36 hrs., the reaction mixt. cooled and acidified with HCl, unreacted VII extd. with Et2O, the aq. portion treated with NaOH, and I extd. with Et2O, washed with H2O, dried, and distd. at reduced pressure yielded I (R, b.p./0.2 mm., m.p., and % yield given): III (VIII), 160.degree., --, 67 [di-HCl salt-H2O m. 226-8.degree. (EtOH)]; IV (IX), 160.degree., 80-2(C6H6), 70 [di-HCl salt m. 258-60.degree. (decompn.) (MeOH)]; V (X), --, 102.degree. (C6H6), 51, [diHCl salt m. 270.degree. (MeOH)]; and VI (XI), 160.degree., --, 77 [di-HCl salt m. 230-2.degree. (decompn.) (EtOH)]. Also prepd. were their MeI-salts by treating 0.0025 mole I with 0.002 mole MeI at 0.degree. and stirring 3 hrs. (compd., m.p. MeI salt, and % yield given): VIII, 163-4.degree. (EtOH), 60; IX, 240-2.degree. (MeOH), 80; X, 255-7.degree. (EtOH), 80; and XI, 204-5.degree. (iso-PrOH), 80. II were prepd. by agitating 0.025 mole I with 0.25 mole MeI in 500 cc. EtOH 2 hrs. at room temp. and fractionated by concurrent repartition chromatography with 150 cc. BuOH-H2O; in the higher Rf fraction was the mono MeI, in the lower Rf fraction was II (R, m.p., and % yield given): III (XII), 211-12.degree. (MeOH), 30; IV, 235-7.degree. (EtOH-H2O), 25; V, 250-1.degree. (decompn.) (EtOH0-H2O), 60; and VI (XIII), 218-20.degree. (MeOH), 67. XII and XIII were the most active. The ganglionic blockade and hypotensive action of these derivs. were detd. and the L.D.50 of 7.2 for XII and 5.4 for XIII was calcd. XII was the most active compd. and the most readily absorbed from the gut.
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(prepn. of)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX

NAME)



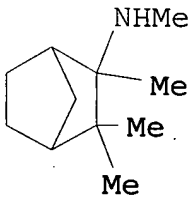
CC 38 (Heterocyclic Compounds (More Than One Hetero Atom))
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl- 870-62-2, Ammonium, hexamethylenebis[trimethyl-, iodide] 1420-39-9, Piperazinium, 1,1,4-trimethyl-4-[2-(4-phenoxyphenoxy)ethyl]-, diiodide 1762-99-8, Piperazinium, 1,1,4-trimethyl-4-[2-[5-methyl-2-(1-methylethyl)cyclohexyl]ethyl]-, diiodide 3245-43-0, Phenetole, .beta.-bromo-o-phenyl- 3351-60-8, Phenetole, .beta.-bromo-p-phenyl- 3483-40-7, Piperazinium, 1,4,4-trimethyl-1-[2-(p-phenethylphenoxy)ethyl]-, diiodide 3765-96-6, Piperazinium, 1-[2-(2-biphenylyloxy)ethyl]-1,4,4-trimethyl-, diiodide 5378-81-4, Piperazinium, 1-[2-(4-biphenylyloxy)ethyl]-1,4,4-trimethyl-, diiodide 6979-77-7, Phenetole, .beta.-bromo-p-phenethyl- 6979-78-8, Piperazine, 1-[2-(2-biphenylyloxy)ethyl]-4-methyl- 6979-79-9, Piperazine, 1-[2-(4-biphenylyloxy)ethyl]-4-methyl-, dihydrochloride 6979-80-2, Piperazine, 1-methyl-4-[2-(p-styrylphenoxy)ethyl]- 6979-81-3, Piperazine, 1-methyl-4-[2-(p-phenethylphenoxy)ethyl]- 6979-82-4, Piperazine, 1-methyl-4-[2-(p-phenethylphenoxy)ethyl]-, dihydrochloride 6991-03-3, Piperazinium compounds, 1,1,4-trimethyl-4-[2-(p-styrylphenoxy)ethyl]-, diiodide 7074-55-7, Piperazine, 1-[2-(2-biphenylyloxy)ethyl]-4-methyl-, dihydrochloride 7074-56-8, Piperazine, 1-[2-(4-biphenylyloxy)ethyl]-4-methyl- 7074-57-9, Piperazine, 1-methyl-4-[2-(p-styrylphenoxy)ethyl]-, dihydrochloride 10304-21-9, Piperazinium, 4-[2-(2-biphenylyloxy)ethyl]-1,1-dimethyl-, iodide 10304-22-0, Piperazinium, 1-[2-(2-biphenylyloxy)ethyl]-1,4-dimethyl-, iodide 10304-23-1, Piperazinium, 4-[2-(4-biphenylyloxy)ethyl]-1,1-dimethyl-, iodide 10304-24-2, Piperazinium, 1-[2-(4-biphenylyloxy)ethyl]-1,4-dimethyl-, iodide 10304-25-3, Piperazinium, 1,1-dimethyl-4-[2-(p-styrylphenoxy)ethyl]-, iodide 10304-26-4, Piperazinium, 1,4-dimethyl-1-[2-(p-styrylphenoxy)ethyl]-, iodide 10304-27-5, Piperazinium, 1,1-dimethyl-4-[2-(p-phenethylphenoxy)ethyl]-, iodide 10305-00-7, Piperazinium, 1,4-dimethyl-1-[2-(p-phenethylphenoxy)ethyl]-, iodide (prepn. of)

L17 ANSWER 21 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1966:62379 HCAPLUS

DOCUMENT NUMBER: 64:62379
ORIGINAL REFERENCE NO.: 64:11710c-e
TITLE: The effect of some anticholinesterases on the response of the tenia to sympathetic nerve stimulation
AUTHOR(S): Ng, K. K. F.
CORPORATE SOURCE: Dept. Pharmacol., Univ. Singapore
SOURCE: Journal of Physiology (Cambridge, United Kingdom) (1966), 182(2), 233-43
CODEN: JPHYA7; ISSN: 0022-3751
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Acetylcholine at 0.2 .gamma./ml. caused contraction and noradrenaline at 0.1.gamma./ml. caused relaxation of teniacoli. The response to stimulation of the perivascular sympathetic nerves at low frequency was either a contraction or a small relaxation. At higher frequencies of stimulation there was only a relaxation. In the presence of hyoscine-HBr (I) there was relaxation at all frequencies, the relaxation increasing as the frequency rose up to 20/sec. The relaxation was not affected by the presence of hexamethonium, but was blocked by bretylium. When stimulation was supplied in the presence of I, the addn. of physostigmine salicylate, Mipafox (phosphodiamidic fluoride), or Dyflos (diisopropyl fluorophosphonate) increased the relaxation to stimulation of low frequency, the increase becoming smaller as the frequency rose. At high frequencies Mipafox decreased the relaxation.

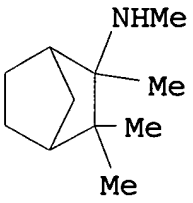
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(nerve blocking by)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 68 (Pharmacodynamics)
IT **Intestines**
(cholinesterase inhibitor effect on taenia coli)
IT 57-64-7, Physostigmine, salicylate
(embryo response to, **intestine** response to)
IT 55-91-4, Isopropyl phosphorofluoridate, (C3H7O)2FPO 114-49-8,

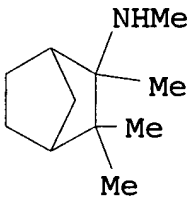
Scopolamine, hydrobromide 371-86-8, Phosphorodiamidic fluoride, N,N'-diisopropyl-
(**intestine** response to)
IT 51-84-3, Choline, acetyl- 138-65-8, Benzyl alcohol, .alpha.-(aminomethyl)-3,4-dihydroxy-
(**intestine** response to, cholinesterase inhibitors and)
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl- 79-55-0, Piperidine, 1,2,2,6,6-pentamethyl-
(nerve blocking by)
IT 59-41-6, Ammonium, (o-bromobenzyl)ethyldimethyl
(salts, **intestine** response to, cholinesterase inhibitors and)

L17 ANSWER 22 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1964:12373 HCAPLUS
DOCUMENT NUMBER: 60:12373
ORIGINAL REFERENCE NO.: 60:2217c-d
TITLE: Pharmacodynamic study of mecamylamine
AUTHOR(S): Lechat, P.; Lamarche, M.; Renier-Cornec, Annick
CORPORATE SOURCE: Fac. Med., Paris
SOURCE: Therapie (1961), 16(2), 252-64
CODEN: THERAP; ISSN: 0040-5957
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB 3-Methylaminoisocamphane-HCl (I), 20-50 mg./1., in the perfusion liquid had a neg. inotropic effect on isolated guinea pig heart; neither sensitization nor resistance were noted. In anesthetized rabbit and guinea pig I, 0.5-2 mg./kg., speeded up heart beats 5.3-17.5% but in dogs they were slowed 10-16%. In rabbit and guinea pig I decreased arterial pressure 16-40%. The hypertension produced by carotid occlusions was lowered 33-49% by I. Acetylcholine hypotension was not influenced by I but adrenaline hypertension increased after I, 0.5-1.0 mg./kg. Salivation produced in dogs by elec. excitement was lowered 31-69% after intravenous injection of 0.5-1 mg./kg. of I. The contraction of the nictitating membrane of the cat was decreased but isolated **intestines** were not influenced. In vivo **intestinal** transit in mice and rats was slowed down by parenteral administration of 5 mg./kg. I.
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(pharmacology of)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 68 (Pharmacodynamics)
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl- (pharmacology of)

L17 ANSWER 23 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1962:21440 HCAPLUS
DOCUMENT NUMBER: 56:21440
ORIGINAL REFERENCE NO.: 56:4064h-i
TITLE: Drug therapy of hypertension. V. Observations on the results with ganglion-blocking agents given in combination with Rauwolfia and chlorothiazide
AUTHOR(S): Moyer, John H.; Brest, Albert N.
CORPORATE SOURCE: Hahnemann Med. Coll., Philadelphia, PA
SOURCE: Archives of Internal Medicine (1961), 108, 231-47
CODEN: AIMDAP; ISSN: 0003-9926
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. CA 51, 4548c.-The ganglion-blocking compds. used with Rauwolfia were: hexamethonium, pentolinium (I), chlorisondamine, and mecamylamine (II). I and II gave the best results. II had greater potency and complete **gastrointestinal** absorption. When chlorothiazide was used in combination with Rauwolfia and a ganglion-blocking agent the required dose of the latter was reduced by 0.5.
IT 60-40-2, 2-Norbornanamine, N,2,3,3-tetramethyl- (mixts. with chlorothiazide and Rauwolfia, effect on blood pressure)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 73 (Pharmacodynamics)
IT 52-62-0, Pyrrolidinium, 1,1'-pentamethylenebis[1-methyl-hydrogen tartrate] **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl- (mixts. with chlorothiazide and Rauwolfia, effect on blood pressure)

L17 ANSWER 24 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1961:133672 HCAPLUS
DOCUMENT NUMBER: 55:133672
ORIGINAL REFERENCE NO.: 55:25171i,25172a-e
TITLE: Cation-exchange resin adsorption compounds
INVENTOR(S): Keating, John W.
PATENT ASSIGNEE(S): Wallace & Tiernan Inc.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2990332		19610627	US 1958-726010	19580402

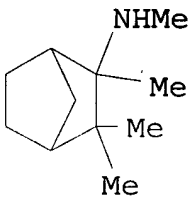
AB Basic N-contg. org. drugs are treated with sulfonic acid cation-exchange resins (I) to obtain immediate-acting ion-exchange adsorption compds. of sustained therapeutic effectiveness and lowered toxicity when administered orally. The cross-linkage of the resins (1-20%) and the particle size of the adsorption compds. (10-400 mesh) are such that the drugs are slowly and uniformly released by the gastric and **intestinal** juices. Not more than 50% of the bound drug is released in 1 hr. by elution with 0.07N HCl and 0.03N NaCl, and at least 10% is released in 3 hrs., the amt. of bound drug in the dosage unit being between 0.2 to 2000 mg., calcd. as drug base, and is safely effective for at least 8 hrs. Particularly applicable are relatively toxic, **gastrointestinal** absorbent basic drugs having an oral L.D.50 in rats of 50-3000 mg./kg., and dosage amts. in the adsorption compd. which are at least twice the av. unit dose for the common

drug. A complex of I and ephedrine was prepd. by adding 25.0 g. ephedrine sulfate to 96.3 g. moist I (25.0 g. dry resin) suspended in distd. H2O. The mixt. was stirred for 6 hrs., washed with H2O, and dried for 15 hrs. at 60.degree.. The resin complex contained 34.01% ephedrine adsorbed as the ephedrine cation. Other basic drugs were prepd. and tested with various ion-exchange resins, various particle sizes, and various degrees of cross-linkage. Adsorption compds. of I were prepd. with: alpha-methylphenethylamine, tert-BuNHPh, ephedrine, deoxyephedrine, mecamylamine, Me .alpha.-phenyl-.alpha.-(2-piperidyl)acetate, phenmetrazine, Pyribenzamine, Chlor-Trimeton, Pyridium, Pyrilamine, N,N-dimethyl-2-(.alpha.-phenyl-o-tolyloxy)ethylamine (phenyltoloxamine), promazine, codeine, dihydrocodeine, dihydrocodeinone, metopon, atropine, dihydrohydroxycodeinone, scopolamine, .alpha.,.alpha. diphenyl-.gamma.-(dimethylamino)valeramide (Centrine), benactyzine, chloropromazine, narcotine, ethaverine, 3-diethylamino-1-cyclohexyl-1-phenyl-1-propanol-EtI (Pathilon), Ecolid, methyl atropine, methyl scopolamine, tricyclamol (Elorine), methamphetamine, Preludin, Propadrine, methapyrilene (Histadyl), chlorothen (Tagathen), thenyldiamine(Thenfadil), thonzylamine (Neohetramine), methafurylene (Foralamin), trasentin, hexamethonium chloride, pentamethonium, tetraethylammonium, and pentolinium.

IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(compds. with base-exchanging substances, prolonged action of)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)

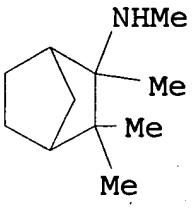


CC 17 (Pharmaceuticals, Cosmetics, and Perfumes)

IT 51-34-3, Scopolamine 52-62-0, 1,1'-Pentamethylenebis[1-methylpyrrolidinium hydrogen tartrate] 52-88-0, 8-Methylatropinium, nitrate 58-40-2, Phenothiazine, 10-(3-dimethylaminopropyl)- **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl- 60-46-8, Centrine 64-95-9, Adiphenine 66-40-0, Ammonium, tetraethyl- 76-42-6, Codeinone, dihydrohydroxy- 77-37-2, Tricyclamol 91-79-2, Thenfadil 91-80-5, Methapyrilene 91-81-6, Tripelennamine 91-84-9, Pyrilamine 91-85-0, Thonzylamine 92-12-6, Ethylamine, N,N-dimethyl-2-(.alpha.-phenyl-o-

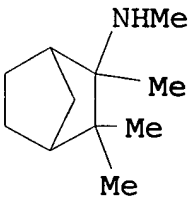
tolyloxy)- 113-45-1, 2-Piperidineacetic acid, .alpha.-phenyl-, methyl ester 125-28-0, Codeine, dihydro- 125-29-1, Codeinone, dihydro- 132-22-9, Chlorprophenpyridamine 134-49-6, Morpholine, 3-methyl-2-phenyl- 148-65-2, Pyridine, 2-[(5-chloro-2-thenyl)(2-dimethylaminoethyl)amino]- 299-42-3, Ephedrine 302-40-9, Benzilic acid, 2-diethylaminoethyl ester 486-47-5, Perparine 531-06-6, Foralamin 937-33-7, Aniline, N-tert-butyl- 6138-33-6, Pyrrolidinium, 1-(3-cyclohexyl-3-hydroxy-3-phenylpropyl)-1-methyl-, methyl sulfate (salt) 7632-10-2, Phenethylamine, N,.alpha.-dimethyl- 7652-32-6, Pyridine, 2-[(2-dimethylaminoethyl)-3-thenylamino]-, hydrochloride 10393-51-8, Pyridine, 2,6-diamino-3-phenylazo-, hydrochloride 13265-10-6, 3-Oxa-9-azoniatricyclo[3.3.1.02,4]nonane, 7-[(2S)-3-hydroxy-1-oxo-2-phenylpropoxy]-9,9-dimethyl- 14838-15-4, Norephedrine 643758-25-2, Isoindolinium, 4,5,6,7-tetrachloro-2-(2-dimethylaminoethyl)-2-methyl-
(compds. with base-exchanging substances, prolonged action of)

L17 ANSWER 25 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1961:113522 HCAPLUS
DOCUMENT NUMBER: 55:113522
ORIGINAL REFERENCE NO.: 55:21371i,21372a
TITLE: Blocking effect of autonomic ganglionic blocking agents on the sympathetic nervous system. II. The effect of autonomic nerve ganglionic blocking agents on the stellate ganglion and a comparative study on their effects on some other ganglia
AUTHOR(S): Yanagiya, Keiji
CORPORATE SOURCE: Tokyo Med. Coll.
SOURCE: Nippon Yakurigaku Zasshi (1960), 56, 85-98
CODEN: NYKZAU; ISSN: 0015-5691
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB The blocking effect by these compds. on the stellate ganglion decreased in the order I, IV, III, II, V, VI, and VII. These agents also had relatively marked effects on the superior cervical ganglion. On the **abdominal** ganglion, I showed the most marked blocking effect but the effective period was the shortest for any of the 3 ganglions.
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(nerve-center response to)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 11H (Biological Chemistry: Pharmacology)
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(nerve-center response to)

L17 ANSWER 26 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1961:107137 HCAPLUS
DOCUMENT NUMBER: 55:107137
ORIGINAL REFERENCE NO.: 55:20180f-g
TITLE: Pharmacodynamic study of mecamylamine
AUTHOR(S): Lemarche, M.; Lechat, P.; Renier-Cornec, A.
CORPORATE SOURCE: Fac. med., Nancy, Fr.
SOURCE: Journal de Physiologie (Paris, 1946-1992) (1961), 53, 394-5
CODEN: JOPHAN; ISSN: 0021-7948
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB In various laboratory animals, mecamylamine (I) exhibited ganglioplegic and hypotensive properties. **Intestinal** motility was not affected by I, but it increased the rate of movement of **intestinal** contents. The oral and intravenous L.D.50 of I is 260 and 25 mg./kg., resp., in the mouse.
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(pharmacology of)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



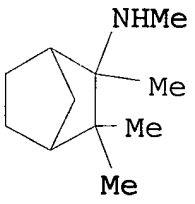
CC 11H (Biological Chemistry: Pharmacology)
IT **Intestinal** contents
(mecamylamine effect on movement of)

IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(pharmacology of)

L17 ANSWER 27 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1961:44537 HCAPLUS
DOCUMENT NUMBER: 55:44537
ORIGINAL REFERENCE NO.: 55:8643e-g
TITLE: Action of angiotensin on isolated guinea pig ileum
AUTHOR(S): Ross, Charles A.; Ludden, Carl T.; Stone, Clement A.
CORPORATE SOURCE: Merck Inst. for Therap. Research, West Point, PA
SOURCE: Proceedings of the Society for Experimental Biology and Medicine (1960), 105, 558-9
CODEN: PSEBAA; ISSN: 0037-9727
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Atropine and morphine effectively block angiotensin- and nicotine-induced spasms of isolated guinea pig ileum. Mecamylamine, pempidine, pentolinium, and hexamethonium blocked nicotine-induced spasms, but only mecamylamine and pempidine blocked angiotensin-induced spasms and then only when used in very high concns. It is proposed that angiotensin acts on the postganglionic cholinergic mechanism of the ileum and that its site of action is probably peripheral to the ganglion.

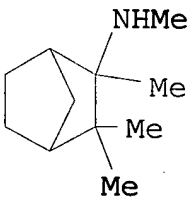
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(**intestine** response to, angiotensin and)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 11H (Biological Chemistry: Pharmacology)
IT 79-55-0, Piperidine, 1,2,2,6,6-pentamethyl-
(antagonism to angiotensin **intestinal** spasm)
IT 57-27-2, Morphine
(effect on spasm of **intestine** by angiotensin)
IT 1407-47-2, Angiotensin
(**intestinal** response to, antagonism by atropine, morphine, etc.)

IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(**intestine** response to, angiotensin and)

L17 ANSWER 28 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1959:78832 HCAPLUS
DOCUMENT NUMBER: 53:78832
ORIGINAL REFERENCE NO.: 53:14311e-g
TITLE: Pharmacodynamics of drugs affecting the blood pressure. Structure-action relations of quaternary ganglionic and parasympathetic drugs.
AUTHOR(S): van Rossum, J. M.; Ariens, E. J.
SOURCE: Archives Internationales de Pharmacodynamie et de Therapie (1959), 118, 447-66
CODEN: AIPTAK; ISSN: 0003-9780
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Studies on the cat blood pressure, isolated frog heart and rectus **abdominis** show that cholinergic activity changes to cholinolytic activity as the size of the substituent groups on the quaternary N increases. Drugs acting on ganglia can be divided into 3 classes in the same way as drugs acting on the myoneural junction. On the rectus, ganglionic blockers which depolarize cause contracture and this is competitively antagonized by the non-depolarizing blockers. Other drugs such as mecamylamine antagonize noncompetitively.
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(blood-pressure response to)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



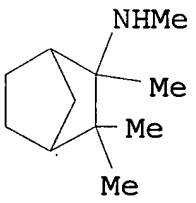
CC 11H (Biological Chemistry: Pharmacology)
IT 51-84-3, Choline, acetyl- **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(blood-pressure response to)

L17 ANSWER 29 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1958:116440 HCAPLUS
DOCUMENT NUMBER: 52:116440

ORIGINAL REFERENCE NO.: 52:20674c-d
TITLE: Action of ganglion-blocking drugs on uterine and **intestinal** smooth musculature
AUTHOR(S): Sharapov, I. M.
SOURCE: Farmakologiya i Toksikologiya (Moscow) (1958), 21(No. 2), 18-24
CODEN: FATOAO; ISSN: 0014-8318
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Dioquine, dicholine, pentamine, hexonium, nanophine, arfonad, and mecamine (inversin) all stimulate contraction of feline uterine and **intestinal** muscles. The **intestinal** effect occurs only in the intact animal and is inhibited by atropine. There is a parallelism between this stimulation and ganglion-blocking activity. Competition with acetylcholine for choline-reactive biochem. systems may be involved.

IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(effect on **intestines** and uterus)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 11H (Biological Chemistry: Pharmacology)
IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl- 68-91-7, Trimethaphan 10-camphorsulfonate 306-53-6, Ammonium, [(methylimino)diethylene]bis[ethyldimethyl-, bromide] 382-82-1, Dicoline 504-03-0, Nanophin 504-03-0, Lupetidine 870-62-2, Hexamethylenebis[trimethylammonium iodide] 3565-33-1, Dioquin 875818-53-4, Piperidinium, 2-carboxy-1,1,6-trimethyl-
(effect on **intestines** and uterus)
IT 13213-99-5, Ammonium, diethyl(2-hydroxyethyl)methyl-
(esters, effect on **intestines** and uterus)

L17 ANSWER 30 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1958:116439 HCAPLUS
DOCUMENT NUMBER: 52:116439
ORIGINAL REFERENCE NO.: 52:20674a-c
TITLE: Mechanism of the ganglion-blocking action of pachycarpine

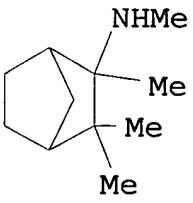
AUTHOR(S): Gorshkov, G. I.
SOURCE: Farmakologiya i Toksikologiya (Moscow) (1958), 21(No. 2), 14-17
CODEN: FATOAO; ISSN: 0014-8318
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB At 10 p.p.m. pachycarpine does not block the ganglia, but gradually weakens the reaction of the vagus nerve in frogs; at 20 p.p.m. it blocks impulse transmission to cardiovascular nerve ganglia, but not cardiac reaction to stimulation of postganglionic vagus nerve ends. This reaction is weakened, however, by pachycarpine at 50 and at 100 p.p.m. Cardiac amplitude is increased and rhythm is decreased.

IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(effect on **intestines** and uterus)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 11H (Biological Chemistry: Pharmacology)

IT Nerve centers
(blocking agents for, effect on **intestines** and uterus)

IT **Intestines**
(nerve-center-blocking agent effect on)

IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl- 68-91-7, Trimethaphan 10-camphorsulfonate 306-53-6, Ammonium, [(methylimino)diethylene]bis[ethyldimethyl-, bromide] 382-82-1, Dicoline 504-03-0, Lupetidine 870-62-2, Hexamethylenebis[trimethylammonium iodide] 3565-33-1, Quinuclidinium, 2-carboxy-1-methyl-, iodide, ester with diethyl(2-hydroxyethyl)methylammonium iodide 875818-53-4, Piperidinium, 2-carboxy-1,1,6-trimethyl-
(effect on **intestines** and uterus)

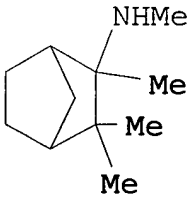
IT 13213-99-5, Ammonium, diethyl(2-hydroxyethyl)methyl-
(esters, effect on **intestines** and uterus)

L17 ANSWER 31 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1958:89368 HCAPLUS
DOCUMENT NUMBER: 52:89368
ORIGINAL REFERENCE NO.: 52:15751e-h

TITLE: Effects of nornicotine and thiamine on the autonomic ganglion
AUTHOR(S): Yamamoto, Iwao; Kurogochi, Yutaka; Kitamura, Takehisa; Nishio, Hyoe; Tamori, Yasuo
SOURCE: Nara Igaku Zasshi (1958), 9, 36-47
CODEN: NAIZAM; ISSN: 0469-5550
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Pharmacologic properties of nornicotine (I) and other nicotine-related compds. were investigated and compared with that of nicotine (II). I, metanicotine, and dihydrometanicotine showed a II-like action on blood pressure and excised **intestine** in a concn. of 10 to 100 times higher than the effective concn. of I. On the other hand, nicotyrine, 3-nicotinoylpropionic acid, 3-succinoyl-6-hydroxypyridine, 6-hydroxymyosmine, cotinine, .gamma.-(3-pyridyl)-.gamma.-methylaminobutyric acid, nicotinic acid, nico-tinamide, and nicotinuric acid showed no II-like action even in a extremely high concn. The action of I and II to contract the excised **intestine** of guinea pigs was antagonized by thiamine, sulfathiazole, 2-amino-4-phenylthiazole, 2-amino-4-methyl-5-phenylthiazole, 2,4-diamino-5-phenylthiazole, tetraethylammonium bromide, hexamethonium, mecamylamine, diparcol, and chlorpromazine with the same type of alteration of the dose-effect curve and the same pA2 value (log of the reciprocal of the concn. of the antagonist which necessitates a 2-fold increase in the concn. of the agonist to give the same effect). These results indicate that I and II react with the same receptor and the receptor may be sensitive to pyrrolidine ring.

IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(as antagonist to nicotine and nornicotine)
RN 60-40-2 HCAPLUS
CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 11H (Biological Chemistry: Pharmacology)
IT Blood pressure
Intestines
(effect of nornicotine and related compds. on, and inhibition thereof)

IT 50-53-3, Phenothiazine, 2-chloro-10-(3-dimethylaminopropyl)-
60-40-2, 2-Norbornanamine, N,2,3,3-tetramethyl- 60-91-3,
Phenothiazine, 10-(2-diethylaminoethyl)- 72-14-0, Sulfathiazole
490-55-1, Thiazole, 2,4-diamino-5-phenyl- 969-99-3, Phenothiazine,
2-chloro-10-(3-dimethylaminopropyl)-, 5-oxide 2010-06-2, Thiazole,
2-amino-4-phenyl- 28241-62-5, Thiazole, 2-amino-4-methyl-5-phenyl-
(as antagonist to nicotine and nornicotine)
IT 59-67-6, Nicotinic acid 98-92-0, Nicotinamide 486-56-6, Cotinine
487-19-4, .beta.-Nicotyrine 494-97-3, Nornicotine 538-79-4,
Metanicotine 583-08-4, Glycine, N-nicotinoyl- 3000-74-6,
Pyridine, 3-(4-methylaminobutyl)- 4192-31-8, 3-Pyridinebutyric
acid, .gamma.-oxo- 15569-99-0, 3-Pyridinebutyric acid,
.gamma.-methylamino- 15873-27-5, 3-Pyridinebutyric acid,
6-hydroxy-.gamma.-oxo- 102308-70-3, 2-Pyridinol,
5-(2-pyrrolin-2-yl)-
(effect on blood pressure and **intestines**)
IT 59-43-8, Thiamine
(effect on blood pressure and **intestines**, nicotine
derivs. in relation to)

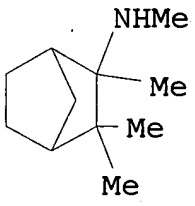
L17 ANSWER 32 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1958:62356 HCAPLUS
DOCUMENT NUMBER: 52:62356
ORIGINAL REFERENCE NO.: 52:11270b-d
TITLE: **Gastrointestinal** secretion and absorption of 3-methyl-aminoisocamphane hydrochloride (mecamylamine)
AUTHOR(S): Zawoiski, Eugene J.; Baer, John E.; Braunschweig, Lee W.; Paulson, Sue F.; Shermer, Audrey; Beyer, Karl H.
CORPORATE SOURCE: Merck Inst. for Therap. Research, West Point, PA
SOURCE: Journal of Pharmacology and Experimental Therapeutics (1958), 122, 442-8
CODEN: JPETAB; ISSN: 0022-3565
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C.A. 50, 15964e. Mecamylamine (I) was actively secreted by Heidenhain (antrum-resected) gastric pouches of the dog after intravenous or oral administration. The amt. secreted appeared to be related to the acidity of the gastric secretion. Gastric absorption studies in dogs showed that little, if any, I was absorbed by Heidenhain gastric pouch mucosa. At no time during the tests was any detectable I secreted into the lumen of the small **intestine** of anesthetized dogs, even though the circulating blood contained high plasma concns. of I. I was well absorbed from the small **intestine** of anesthetized dogs. These and other observations demonstrate that there is a definite basis for a **gastrointestinal** cyclization of I which is favorable to its

over-all physiol. economy. Only negligible amts. of I were excreted in the feces.

IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(metabolism by **intestine**)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 11H (Biological Chemistry: Pharmacology)

IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(metabolism by **intestine**)

L17 ANSWER 33 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1958:62355 HCAPLUS

DOCUMENT NUMBER: 52:62355

ORIGINAL REFERENCE NO.: 52:11269i,11270a-b

TITLE: Excretion of radioactivity following administration of tris-(ethylenimino-2,3-C14)-s-triazine in normal mice

AUTHOR(S): Goldenthal, Edwin I.; Nadkarni, Moreshwar V.; Smith, Paul K.

CORPORATE SOURCE: George Washington Univ., Washington, DC

SOURCE: Journal of Pharmacology and Experimental Therapeutics (1958), 122, 431-4
CODEN: JPETAB; ISSN: 0022-3565

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

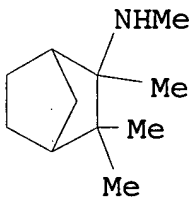
AB The title compd., with all carbons of the 3 aziridino groups labeled, was synthesized by known methods from HOC14H2C14H2NH2. Its in vivo metabolism was studied after intraperitoneal or intravenous injection in mice. After intravenous injection the radioactivity disappeared from the blood within a few min. Very little radioactivity appeared in the feces and exhaled air. Between 68 and 73% of the injected radioactivity was excreted in the urine in the first 24 hrs. and 4-6% in the next 24 hrs. Chromatographic sepn. on an ion-exchange column revealed at least 16 radioactive metabolites in the urine. Five of these accounted for 74% of the radioactivity; the largest amt. (34%) appeared to be in the creatine fraction. Less than 1% of the urinary radioactivity was present as urea. None

of the other major metabolites were normally occurring constituents of urine. Their possible nature is discussed.

IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(metabolism by **intestine**)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 11H (Biological Chemistry: Pharmacology)

IT **60-40-2**, 2-Norbornanamine, N,2,3,3-tetramethyl-
(metabolism by **intestine**)

L17 ANSWER 34 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1956:84431 HCAPLUS

DOCUMENT NUMBER: 50:84431

ORIGINAL REFERENCE NO.: 50:15964e-g

TITLE: Renal elimination of 3-methylaminoisocamphane hydrochloride (mecamylamine)

AUTHOR(S): Baer, John E.; Paulson, Sue F.; Russo, Horace F.; Beyer, Karl H.

CORPORATE SOURCE: Merck Inst. for Therapeutic Research, West Point, PA

SOURCE: American Journal of Physiology (1956), 186, 180-6
CODEN: AJPHAP; ISSN: 0002-9513

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

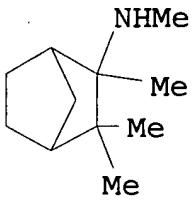
AB cf. C.A. 48, 2266b. Mecamylamine can be both actively secreted and actively reabsorbed by the renal tubles in the dog. Net secretion occurs when the urine is acid; net reabsorption occurs when the urine is alk. A direct renal extn. study showed that tubular secretion occurred at rates equal to effective renal plasma flow. The clearance of mecamylamine was depressed below glomerular filtration rate when the urine became alk. The secretory mechanism is not identical with that for p-aminohippurate. Approx. 1/4 of an administered dose is excreted in the urine within 24 hrs., whether given orally or parenterally. These data are consistent with the biol. evidence that absorption from the **gastrointestinal** tract is essentially complete, and that extrarenal factors are

important in the over-all physiol. economy of the drug.

IT **60-40-2**, 2-Norcamphanamine, N,2,3,3-tetramethyl-
(kidney excretion of)

RN 60-40-2 HCAPLUS

CN Bicyclo[2.2.1]heptan-2-amine, N,2,3,3-tetramethyl- (9CI) (CA INDEX NAME)



CC 11H (Biological Chemistry: Pharmacology)

IT **60-40-2**, 2-Norcamphanamine, N,2,3,3-tetramethyl-
(kidney excretion of)